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FINANCIAL TIMES

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NEWS SUMMARY

...RAL

...rosland ...ill ...tting ...orse

...nthony Crosland, Foreign Commonwealth Secretary, ...reported last night to be ...riorating" following his ...stroke. He is in the ...iffe Infirmary, Oxford.

...Callaghan was being kept ...ned of his condition but no ...diate moves are planned to ...nt a Cabinet Minister to ...ise for the Foreign Secre... during his illness. Dr. David ..., Minister of State, is con...s to act for Mr. Crosland. ...s Richard Evans, Lobby ...r.

...supposition at Westmin... however, was that Mr. Cros...'s illness was so serious that ...ould be unable to return to ...e politics. It is therefore ...ned that the appointment of ...v Foreign Secretary will not ...ng delayed.

...njay Gandhi ...fight seat

...Gandhi, Prime Minister of ... has defied opposition from ...ess Party leaders and ...d through the nomination ...r son, Sanjay, as candidate ...e Amethi constituency in ...key province of Uttar ...sh. It will be the first time ...y has run for public office. ...6

...ial Democrats ...in Denmark

...h election results were a ...ph for the Social Demo... Party. With 70 per cent. ...e returns counted the ...s seats are likely to be ...ead by 12 to 65, which ...llow the Prime Minister to ...a majority coalition with ...assistance of only one or ...ther parties.

...son turns ...tables

...arold Wilson last night on ...News at Ten denied Mr. ...aines' allegation that Lady ...nder was involved in ...rnment policy decisions. ...id Mr. Haines—his former ...officer—was the one who ...to influence Government ...r.

...ares will ask ...EEC entry

...ario Soares, the Portuguese ...e Minister, officially con... for the first time yester... that he would lodge a formal ...entry application next ...h. At a London Press con... he said Portuguese industry would be ready for full ...ration by 1985. Page 4; ...rial Comment, Page 14

...nce Charles ...es the honours

...e Charles held his first ...titure yesterday. Deputising ...he Queen at Buckingham ...e he conferred seven ...thoods and 130 other ...rs. The Duke of Gloucester ... the first Royal visit to ...r since 1960 yesterday when ...rived by helicopter at Hills... ...gh Government House.

...m demo ban

...local authorities of Schles...olstein have banned a ...nstration planned for Satur... against the atomic station at ...dorf, which is the focus of ... German protest against ...ar power. Back Page

...efly . . .

...Avon's memorial service in ...minster Abbey yesterday ...attended by 1,500 people. ...r Page 11

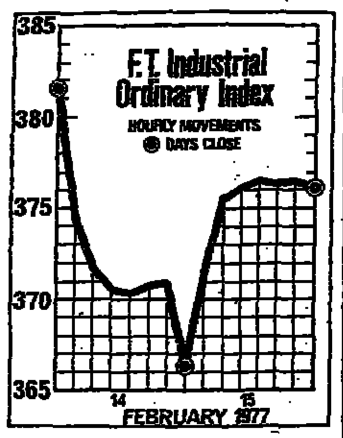
...Shah of Iran said on Dutch ...ion that more than 3,000 ...dists were being held in his ...try's jails.

...birth rate fell in 1976 for ...2th consecutive year to a ...w low of 11.8 per 1,000 ...e. The previous record low ...te war years was 14.4 in ...

BUSINESS

Equities rise 9.8; £ back to $1.70

● EQUITIES recovered some ground, with a feeling in stock markets that Monday's reaction to the trade figures was overdone. The FT 30-Share Index closed a little below the day's best at 376.1 to recoup 9.8 of the previous day's drop of 15.2. Back Page



● GILTS closed firm, the recovery extending to 1¼ in longs. Government Securities Index picked up nearly half of Monday's loss with a rise of 0.72 to 65.15.

● STERLING recovered 75 points to close at $1.7045. Its trade-weighted depreciation narrowed to 43.4 (43.6) per cent.; dollar's narrowed to 1.12 (1.36) per cent.

● GOLD fell 50c to $135.875.

● WALL STREET rose 5.99 to 944.32.

● CHINA sold ... worth $350m. in London in December—apparently an emergency measure to cope with balance of payments difficulties. Page 6

Power charges may rise 11%

● ELECTRICITY prices will go up by about 11 per cent. in the coming financial year if, as expected, there is a sharp rise in the cost of coal in the spring. Back Page

● SHELL/ESSO group has made a new oil discovery near its commercial Auk field. Back Page. Mesa has been excluded from the latest round of offshore licences, although concessions in the area it sought have been left unallocated. Page 11

● FRIEDRICH KRUPP, the West German steel and engineering group, confirmed that it had agreed to a big barter deal with Iran—to exchange manufactured goods for oil. Back Page

● INDUSTRIAL production picked up slightly in recent months, but the growth rate is still low and not enough to prevent further unemployment. Back Page. Editorial comment, Page 14

● PARLIAMENTARY examiners will give their long-awaited verdict to-morrow on whether the Government's Bill to nationalise the aircraft and shipbuilding industries is hybrid. Back Page. Orders held by U.K. shipyards dropped by more than 1.25m. tons in the last three months of last year to their lowest level for several years. Page 9

● COURTAULDS will open a new office in Japan this month to try to boost its already growing trade in fibres and fabrics with Asian textile producers. Page 8

● ENGINEERING profession is likely to be examined by a Government committee of inquiry. Page 9

COMPANIES

● BAMFORDS plans a one-for-two rights issue at 30p to raise £720,000. Page 32

● BATH AND PORTLAND group made record pre-tax profit of £2.25m. (£2.09m.) in the year to October 31. Page 32

...EF PRICE CHANGES YESTERDAY

(...es in pence unless otherwise indicated)

RISES

...rc 4½pc '74-79	£90½	+ 1
...my 13¼pc '93	£97½	+ 1
...A	53	+ 4
... Breweries	61	+ 3½
... News	166	+ 12
... Cement	173	+ 5
...an	398	+ 8
...	158	+ 5
... (J.)	124	+ 5
...s Capel	37	+ 3
...ercial Union	112	+ 3
... Mail A	265	+ 8
... Intnl.	162	+ 8
...a Rue	310	+ 10
...	106	+ 8
...	85	+ 8
...t Bros.	175	+ 10
...	430	+ 12
...er Siddeley	494	+ 10
...	330	+ 5
Land Secs.	152	+ 5
Lloyds Bank	197	+ 12
Lyons (J.)	68	+ 4
Lucas Inds.	222	+ 7
Morris (R.)	147	+ 7
NatWest	217	+ 12
Racal Electronics	266	+ 9
Rank Org.	170	+ 6
Sunley (B.)	126	+ 16
Tate and Lyle	258	+ 6
Thomson Org.	405	+ 10
Tube Invs.	352	+ 12
Union Discount	295	+ 10
Unilever	424	+ 14
Watham's	134	+ 8
BP	914	+ 10
Shell Transport	496	+ 6
Tricentrol	168	+ 10
FALLS		
Kitchen (R.) Taylor	34	− 6
Primrose	56	− 6
Selection Trust	440	− 16

TUC unwilling to discuss pay curbs until after Budget

BY ROY ROGERS, LABOUR CORRESPONDENT

TUC leaders will to-night tell Mr. Denis Healey, the Chancellor of the Exchequer, that they are not prepared to negotiate a new phase of wage restraint to begin in August, before they have seen his spring Budget.

They are due to meet the Chancellor and other Ministers for talks over dinner following a special meeting of the TUC economic committee at which they hope to agree on a common approach on pay.

Mr. Healey had hoped to conclude a new agreement with the unions in time for the Budget which is expected at the end of next month. But union leaders, some of whom fear a shopfloor revolt if a pay deal is rushed through before their individual union conferences, want to see the extent of Mr. Healey's promised tax concessions and the new price controls proposed by Mr. Roy Hattersley, the Prices Secretary.

This view was emphasised yesterday by Mr. Hugh Scanlon, president of the Amalgamated Union of Engineering Workers, after his union executive decided to oppose any move to call an early special TUC conference or Congress on pay.

He stressed that he was against any meetings to determine pay policy before the individual union conferences, adding ominously that wages policy resolutions coming in for the AUEW's policy-making national committee in May were "almost overwhelmingly" calling for a return to free collective bargaining.

As if to underline this yesterday, 300 shop stewards representing about 130,000 workers at British Leyland called for a one-day strike and lobby of Parliament, probably after Easter, in support of an end to wage restraint.

After the meeting in Birmingham, Mr. Derek Robinson, the chairman of the unofficial but influential Leyland stewards combine committee, gave a warning that the Government and the TUC would do a deal on extending wage restraint "at their own risk."

Meanwhile, a statement that rank and file trade unionists would have the final say on any proposed new wage agreement came yesterday from Mr. Len Murray, the TUC general secretary. He predicted, after a meeting with Scottish TUC leaders, that a special TUC Congress would be held on pay after the Budget.

It was, he said, still too early for possible formulae to be discussed as there would have to be detailed talks with the Government to establish the facts of the economic situation.

Few, if any, details of the possible shape of any new wages policy are therefore expected from this evening's TUC economic committee meeting or the subsequent talks between the Chancellor and the TUC's six representatives on NEDO.

In spite of the well-orchestrated shop floor campaign against any extension of pay policy, the majority of union leaders remain in favour of a new agreement provided it is sufficiently flexible to accommodate their members' particular aspirations.

The National and Local Government Officers Association, for instance, is seeking restoration of the recent public expenditure cuts, while the National Union of Public Employees sees an increased TUC target minimum wage as presenting the best deal for its low-paid members.

Another suggestion came yesterday from Mr. Bryan Stanley, general secretary of the Post Office Engineering Union. In a letter to Mr. Murray, he proposed a policy which set an overall percentage pay limit on the wages bill of a bargaining group, the distribution of which would be left to negotiators.

Calls for greater flexibility so as to reward managers and highly skilled workers came from employers' leaders yesterday although the CBI, through Lord Watkinson, its president, insisted that the maximum increases allowable under the next stage should be 6 per cent. if inflation is to be reduced.

Premier warns & Leyland men
men urge strike Page 12
Details, Page 5
Feature, Page 14

Saudi price-rigging claim over power tenders

BY OUR INDUSTRIAL STAFF

BRITISH COMPANIES tendering for a £700m. electrification scheme in Saudi Arabia have been shocked by allegations of price-rigging among the eight international competitors.

The allegation was by Dr. Ghazi 'al-Gosaibi, Saudi Minister of Industry and Electricity, when he refused to accept any of the tenders for four separate regions. He said that the prices were too high and the eight companies were suspected of having "acted in concert to defraud the Saudi Government."

That Government has now set up a committee of Ministers to investigate the way in which foreign companies, with their Saudi agents, bid for development contracts.

Rejection of the bids comes against a background of increasing concern in Saudi Arabia about the high price of major contracts.

Two days ago the Ministry of Municipal and Rural Affairs cancelled public tenders for sewage and flood-control works in three major cities.

These contracts were believed to be worth about $850m. each.

The companies tendering for the four electrification schemes and power plants were GEC Overseas Services, Balfour Beatty and Hawker Siddeley from the U.K.; Siemens and Man from West Germany; Brown Boverie from Switzerland; and IHI and Mitsubishi from Japan.

The contracts involved provision of transformers, switchgear, electric power lines and diesel-powered generator sets, with extensive civil engineering works in four areas, Jizan; Al-Kharj (south of Riyadh); Baha; and Asir.

The power stations were to be relatively small, at between 35MW and 80MW. The individual generator sets were between 5MW and 10MW each.

It is reported from Jeddah that the companies who tendered for these jobs will be barred from the second round, in which new bids will be invited from "friendly countries and companies."

But the British companies, whose tenders were at the higher end of the range, hope they will be given another opportunity to compete.

The allegation of price-fixing has been greeted with some consternation in the industry because of the potential importance of the Saudi Government as a future customer, but the idea of collusion between British, German, Swiss and Japanese companies in this highly competitive field is privately dismissed as absurd. None of the companies was prepared to comment, however.

The Saudi Government's objections to the tenders are still obscure. It is understood that the Japanese quoted a price which was about 30 per cent. lower than that at the top of the field. It is not known whether the Japanese bid met the full specification of the consultants advising Saudi Arabia.

The British companies were labouring under the disadvantage of a high rate of domestic inflation which has to be taken into account in a contract expected to run for five years. They have also been nervous about the effect of an upward movement of the pound on prices quoted in Saudi Arabian riyals.

One theory is that the tenders were rejected because the Saudi Arabians wanted a higher local labour content than was provided by the lowest bids. They are also said to have been mystified by the very wide range of prices, and rather shocked by the total cost of the job.

Devolution Bill in more trouble

BY PHILIP RAWSTORNE

THE GOVERNMENT'S devolution legislation ploughed deeper into difficulties in the Commons last night despite further concessions designed to speed its passage.

Mr. Michael Foot, leader of the House, announced major changes in the proposed referendums in Scotland and Wales.

The referendums would be consultative and not mandatory, he said. In addition the form of the question would be revised and the terms of the Bill altered to emphasise that the results would not affect the unity of the U.K.

The concessions, which followed a 60-minute discussion of Government tactics in Downing Street, were intended to appease both Tory and Labour critics.

But the move merely sparked another rebellion. Labour anti-devolutionists, joined by the Tories, protested that the changes had created even more confusion.

Mr. Eric Heffer, a leading Left-winger, forced a vote to adjourn the Committee stage — now in its ninth day — until the Government introduced amendments to clarify its intentions.

The Government averted the loss of another seven hours' debate by defeating the move by 231 votes to 202—a majority of 29. Scottish Nationalists, though protesting about the changes, voted with the Government.

The immediate reaction held out little hope that the Government's concessions would help it to muster enough support to impose a guillotine on the Bill.

Mr. Foot told the Commons the Government decision created "no great mystery." There was no intention to transform the referendums into generalised public opinion polls.

After listening to the strong arguments for a consultative referendum he believed this would be a better way. "The proposals mean Parliament will retain its sovereignty . . . but will take into account the view expressed by the people of Scotland and Wales in the referendum.

"I believe the referendum result will be accepted by the Commons but the Commons must have the final word in the matter."

Mr. Foot said the Government had decided to change references to the unity of the U.K. in the new clause to make it "quite explicit that this is a factual statement about the provisions of the Act and not a general political prediction of the future."

Devolution switch provokes rebellion, Page 12

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Callaghan calls CBI to Bullock talks

By John Elliott, Management Editor

THE PRIME MINISTER formally launched the Government's bid last night to coax the CBI into accepting industrial democracy legislation when he invited their leading representatives to start talks on participation below Board level with senior Ministers.

But this does not mean that the Government intends to budge from its commitment to introduce legislative proposals this summer on worker directors, following publication last month of the Bullock Report.

Its significance is that, as the Prime Minister spelt out last night, the Government wants to achieve the largest possible measure of agreement for its worker-director legislation. To this end Ministers are prepared to start their post-Bullock consultations with the CBI by examining the problems of participation from the shop floor upwards.

Delegation

Lord Watkinson, the CBI president, who led a six-man delegation of senior industrialists to the hour-long meeting with the Prime Minister at Westminster, said he would put the offer to the monthly meeting of the CBI's Grand Council to-day.

If, as seems likely, the council accepts, Mr. John Methven, CBI director-general, will hold exploratory talks with Mr. Edmund Dell, Secretary for Industry.

The Prime Minister was accompanied at the talks by Mr. Dell; Mr. Eric Varley, Secretary for Industry; and Mr. Albert Booth, Secretary for Employment. He said that he respected and understood the CBI's objections, even if he could not accept them.

The CBI leaders based their objections on their three basic sticking points on which they say they are not prepared to consult.

These are statutory imposition of trade union-nominated worker directors, parity of representation, and unions monopolising the choice of the worker directors.

"On these three points there can be no give from the CBI at all. These points are not discussable," declared Lord Watkinson.

He summed up the meeting when he said: "We have really not progressed very far; we just have not fallen out at the first fence," and added that he had told the Prime Minister that "if you try to ram the Bullock Report down our throats you will meet unremitting hostility."

Watkinson on pay curbs, Page 9

Nine agree on fish stock protection

BY ROBIN REEVES — BRUSSELS, Feb. 15

A BREAKTHROUGH in the Common Market's long and complicated fisheries negotiations was achieved here to-day when Agriculture and Fisheries Ministers of the Nine reached agreement on the basis for a Community régime to conserve fish stocks inside the new 200-mile limits.

Principal elements in the agreement include:

1.—A total ban on North Sea herring fishing between February 28 and April 30, with a possible extension to be considered later;

2.—A total ban on Celtic Sea herring fishing from March 1 to the year's end;

3.—Closure of an area to the North and East of Scotland to industrial fishing for fishmeal (the so-called Norway pout box) initially from February 28 to April 30, with a later review of the size of the box;

4.—Industrial fishing to be subject to a reduction in the maximum whitefish by-catch tolerance to 20 per cent. (from 25 per cent.) from April 1.

In addition, strict controls are envisaged on the activities of factory ships operating inside the Community's new 200-mile zone.

Irish ban

While to-day's agreement met the most pressing conservation demands of the British Government, however, it proved insufficient to satisfy Ireland. Mr. Patrick Donegan, who holds the newly created post of Irish Fisheries Minister, announced that his Government would be introducing from March 1 a unilateral ban prohibiting all vessels of 110 ft. or 1,100 brake-horsepower and over from fishing within an area varying from 50 to 100 miles off the Irish coast, at least until the end of the year.

The Irish move is a reaction to fears that its fish stocks will be irreparably damaged by a greater concentration of fishing activity in Irish waters by EEC boats, following the move to 200-mile limits.

Some anger

While accepting to-day's agreement on other conservation measures, it did not consider them adequate or meet the Community recognition of the Irish fishing industry's special need to expand.

Dublin's unilateral action was the subject of some initial anger, notably from the Germans, the French and the Brussels Commission. The latter warned of the possible repercussions for the EEC's external fisheries negotiations and in other policy areas.

But the row blew over quickly as the Council closed ranks before to-morrow's unprecedented meeting here between the Community and the Soviet Government to discuss a possible reciprocal fishing agreement.

These talks will represent the nearest the Russians have come to affording the Community diplomatic recognition.

Crucial

A key element of to-day's breakthrough was that it preserved the right of coastal States to adopt additional conservation measures unilaterally, provided they are temporary and non-discriminatory as between EEC fishing fleets, and provided such measures are not already the subject of a Community conservation regulation.

This aspect was crucial in enabling the U.K. to step back from the unilateral brink—at least for the time being.

Progress would not have been possible had not Mr. Paul Dalsager, the Danish Agriculture and Fisheries Minister, agreed to lift his Government's overall reservation on last week's partial conservation accord among EEC Foreign Ministers and tried to push the negotiations to a successful conclusion.

Conservation

The agreement reached to-day is clearly just the start of a Common negotiated fish stocks conservation regime.

It will in turn form only one element of a Common Fisheries Policy revised to take account of the move to 200-mile limits.

But it should help to keep negotiations in other areas on the Community rails, notably those with non-EEC countries.

Discussion of a definitive new EEC internal fisheries regime has been handed over to an ad hoc group of senior officials of the Nine, plus the Commission. Included in their brief are the British and Irish demand for an exclusive national fishing band of up to 50 miles offshore.

£ in New York

—	Feb. 15	Previous
Spot	$1.7045-7050	$1.6950-6960
1 month	1.62-1.60 dis	1.30-1.25 dis
3 months	4.50-4.30 dis	
12 months	12.90-12.70 dis	11.90-11.80 dis

LOMBARD

Why poor people get poor value

BY ANTHONY HARRIS

SOME potentially rather explosive evidence about poverty has been given to the Royal Commission on the Distribution of Income and Wealth by the National Consumer Council, a body whose potential disturbance-value is beginning to look quite large. Its message is that the poor are poorer than we think, because they get worse value for their money, and that this gap has got bigger in the last 15 years, and especially in the last 12 months. Labour rule, in other words, is bad for pensioners and the low paid.

Unwelcome

At this stage of the pay negotiations, such an invitation to ask for higher pensions, preferential treatment for the low paid, continued subsidies and the rest could hardly be more unwelcome; but since the NCC's case appears well founded, it is important to understand just what it does show and what it doesn't.

There are in fact two totally different themes woven together in this evidence—a concept which the NCC calls consumer detriment, and a whole range of work on differential inflation. The first means that the poor often get poor value for their money when they spend it; and the second means that the prices of the things they buy rise faster than other prices. The first is a static phenomenon, the second an aspect of inflation, and taken together they seem likely to inspire confusion of mind.

Consumer detriment is rather an odd concept. It brings together such ideas as that poor customers get worse hire purchase terms, that they tend to shop at high-priced corner stores, that they cannot afford bulk purchases, and that they may be too ignorant to shop around effectively, and are exploited by tallymen, mail order companies and others. Some of these assertions invite scepticism, some helpless sympathy, and hardly any seem likely to yield to any sort of Government action.

It is not at all easy to know just what the NCC is trying to prove here anyway. The broad and largely unbelievable conclusion is that the poor may be getting value for money 20 per cent. worse than the rich, so that the gap in real incomes is that much bigger than the statistics suggest.

My own reaction is to ask: so what? This reflects puzzlement, not heartlessness; I simply do not understand the significance of exact numbers in this context. My reaction to the idea that one man is twice as well off as another is exactly the same as my reaction to the idea that he is two and a half times as well off: how? why? to what purpose? and what has been happening to his real income recently? One of the first lessons I learned in economics was that one cannot say that a doubling of consumption means doubling happiness; in discussing welfare, one can only say that this man is better or worse off than another, and better or worse off than he used to be. The absolute numbers are virtually meaningless.

In any case, the NCC's evidence is rather a mixed batch. Much of it rests on an assertion that poor people depend much more than rich ones on small local shops. I find it hard to believe that this fact has the significance the NCC supposes. It is probably true that small shops—which are mainly in poor areas—have a high proportion of poor customers; but this is not the same as saying that poor people are cut off from keen value.

The high interest rates charged to poor customers, even in furniture shops and car showrooms (where there is some chance of effective recovery in case of bad debt) looks unfair, but almost certainly, in a highly competitive market, reflects relatively high risk and the higher cost of servicing small accounts. If there is abuse in any of these fields, it should be sought out and remedied; but to spend much time on measuring the value-for-money obtained by different classes of shopper for the sake of the arithmetic results would, in my view, be a waste of time.

More equality

The sad thing is that all this nonsense can only distract attention from the really important part of the NCC's evidence—the tentative measurement which suggests that the poor have recently suffered much steeper rises in their living costs than the average citizen. This work, pioneered by such economists as John Muellbauer at Birkbeck College and David Piachaud, of the LSE, draws attention to the fact that we may not have made the progress we suppose in protecting the weakest against the effects of inflation. Their work suggests that the apparent increase in pension levels compared with average wages and the apparent move towards greater equality in gross incomes disappears completely once differential inflation is taken into account. This work, which suggests the reason for popular discontent about the results of well-intended policies, suggests an important gap in our knowledge and a field for research which really would bring results.

RACING — BY DOMINIC WIGAN

Confidence in Lanzarote

LANZAROTE must win to-day's Reynoldstown Novices Chase if Fred Winter is to let him take his chance in the Gold Cup.

I feel confident he will come through with flying colours. An impressive winner from Julian Swift at Lingfield last time out,

BROOKE BOND OXO'S sponsorship of a series of flat races for men and women amateur riders is to continue this year. The nine-race series begins at Doncaster on March 25 and continues at Nottingham, Thirsk, Ayr, Warwick, Newmarket, Wolverhampton and Kempton Park, with the championship final at Haydock on October 2.

Lanzarote made an even more praiseworthy performance in his first race over fences, the Stand Novices Chase at Sandown in January.

There the former Champion hurdler proved too good for Fred Rimell's highly-rated Zarib, who has since franked the form with a smooth success from The Last Light and Newfoundland in Ayr's valuable West of Scotland Pattern Novices Chase.

One of the best hurdlers seen since the war, Lanzarote has given his supporters every hope in his two races over fences that he can prove as good in the chasing field.

An 8-1 chance in most lists for the Gold Cup, Lord Howard de Walden's nine-year-old can underline his chance in the Cheltenham feature race by outclassing the course and distance winner, Arctic Heir.

I do not intend to look farther than Otter Way for the winner of the Whitbread Trial Chase. After an absence of nine months from the course, Jeff King's mount put up an encouraging effort when tiring close home to finish fifth behind some fitter rivals in the Leisure Caravan Parks Chase at Sandown early this month.

Strongly fancied to make his presence felt in the Gold Cup, Otter Way is sure to take a great deal of beating here.

I take him to add to his growing reputation with a win over that fine mare Grangewood Girl, who kept up a strong gallop to beat Royal Relief, from whom she was receiving only 3 lb, in the Blue Circle Cement Chase at the last meeting here.

For those seeking a likely outsider, the underrated King Flame seems to be the each-way answer.

I have seldom seen a more impressive performance by a novice hurdler than that put up by Midsummer Lad in beating Blustery by 20 lengths at Sandown recently.

I take him to cause a surprise by bringing John Cherry's unbeaten record over the minor obstacles to an end in the opener, the Datchet Novices Hurdles.

ASCOT

1.30—Midsummer Lad***
2.00—Tree Tangle
2.30—Outpoint
3.00—Otter Way**
King Flame e.w.
3.35—Lanzarote*

SALEROOM — BY ANTONY THORNCROFT

Eight lead soldiers set record

THE LONDON salerooms were kept busy yesterday with a mass of fairly routine auctions. Perhaps the most interesting price was at Phillips, where a set of lead soldiers established an auction record of £390. The soldiers, eight all told, were Montenegrin infantry made in 1914 by Britains and sold originally for 1s.

The sale of lead soldiers and models totalled £15,230, with another good price of £260 for a 1920 German tinplate model of an army ambulance.

The other Phillips auctions, of furniture and books, were more routine, with best prices of £2,200 for an 18th-century Dutch mahogany cylinder bureau and the same for a set of 11 Regency rosewood dining chairs, and a highest of £1,300 among the books for a 1795 atlas by Cassini.

Sotheby's had more trouble selling the actual weapons of war. The prize lot in its sporting guns and antique weapons auction, an apparently unique Saxon three-barrelled wall piece made by Gessler in 1610, was bought in at £15,000. The sale made £104,434 with around 30 per cent. bought in.

The top prices were £8,000 for a late 16th century Nuremberg wheel-lock puffer; £5,400 for an English flintlock fowling piece by Robert Rowland made in 1718; and £3,800 for the actions, stocks and fore-ends of a pair of Purdey sporting guns.

The second day of the book sale added £69,335 for a two-day total of £135,658, with less than 2 per cent. bought in.

The best price of the day, £18,000, was paid at Christie's for six volumes of lithographs produced by David Roberts after a tour of the Holy Land and Egypt, and first published in 1842-49. The buyer was Spink, and the price almost doubled the estimate. The auction realised £106,760.

Stubbs' "Haymakers," sold for £5,500.

An engraving by Stubbs, "Haymakers," sold for £5,500 to Fritz-Denneville, and another Stubbs, "Labourers," to Mendez for £2,400. A set of over 1,000 prints of Phytanthoza Iconographia by Weinmann made £3,800, while Thomas Shotter Boys' "London As It Is" sold for £2,100.

In the afternoon session six lithographs by Nevinson on "Building Aircraft" from the series "The Great War: Britain's Efforts and Ideals," sold for £1,650.

There was a routine auction of Japanese ceramics, lacquer and metalwork which totalled £40,473

GARDENS TO-DAY

Horizons reduced by price of fuel

BY ROBIN LANE FOX

ENTERING a hot private greenhouse recently, in which the summer's geraniums were being raised from seed, I was reminded of all that the past three years' fuel prices have removed from a gardener's horizons. There were Birds of Paradise (Strelitzia), whose seed is worth buying from Thompson and Morgan of Ipswich if you chop its tough coating before you sow it and then keep it up to a temperature of 70°F.

There were sensitive plants, Mimosa Pudica, usually available from Tresseders of Truro in Cornwall and happy wherever they can be kept well clear of frost: nurserymen sell them as a curiosity with which to amuse the children, but you do not have to be childish in order to enjoy their way of curling their leaves and young shoots whenever you touch them lightly. There was even a Cattleya, most opulent of all orchids.

Why worry with a hot-house, you may wonder, when houses have airing cupboards and a warm kitchen? If you sow these tropical seeds in boxes and cover them over with polythene bags, you can indeed leave them in a dark cupboard and expect a certain success in coaxing them into a pair of young leaves.

Deathly

Once the yellowish leaves appear, you must bring them into the light, and here you might well opt for the kitchen. There may be gardeners, perhaps, who do keep greenery alive beside a stove; when I see it, I suspect it has been bought within the past week or so and has no longer to live.

The wild changes in temperature and the steams and vapours in the air are deathly for most plants. At night the kitchen freezes, so you cannot persuade yourself that it is as good as an old-fashioned conservatory.

What of the new limits on a greenhouse? They cannot cramp a gardener with imagination. Glass keeps off the rain: there are plants which are more distressed by damp than frost and as the aim of a greenhouse is partly to grow plants which cannot be grown outdoors, you can stock it with plants which hate rain and still be sure that it is worth the cedarwood on its rests. As the rain floods out my rosebeds, I am inclined to think that a glasshouse is the only defence left after two years of weather, since July 1974, which has defied any outdoor gardener's expectations.

Among plants for an unheated glass shelter, I would put the Lewisias near the top of any list. They will flower out of doors and are sold unhesitatingly by alpine catalogues as plants for open walls or rock gardens. Indoors, they are unrecognisably more handsome.

Rich soil

Their cause has been done much good by the fine exhibits at the spring RHS flower shows: here, Lewisias are grown in shallow pans filled with a rich acid compost and sharp stone chippings and will show as many as fifty flower-stems on the rosettes of one plant. They are quite hardy, but the dampness of winter spoils them and reduces them to a size which hardly catches the eye.

It would be worth putting part of a run of greenhouse staging down to a bed of Lewisias which would root in a reasonable depth of rich soil. But if you are patient and choose a few for pans, you can also bring them into a cool room indoors when they flower. Their stems are about six inches high, but the striped flowers deserve a close inspection. Many of the best have been bred in America where Lewisia clubs flourish and wild plants can be found in the Rocky Mountains. I think that we still pay too little attention to them and that they are an American fancy, like Pleiones, which is far more easily managed than many gardeners recognise.

Can you grow Lewisias where there is lime in the soil and the water? In my experience, you can, although they are happier if you give them a compost with plenty of peat and remember to water them with rain-water when it is available. For most varieties, I am convinced that it is wise to find a half-shaded corner of cold house or frame and to some rotted manure in th pots.

It is worth feeding th with liquid manure, too, as buds appear. The flowers about the size of a daisy's, op rounded and often stri prettily in shades of pink, wh and orange. The best selection offered by Ingwersens Gravetye, East Grinst Sussex; new hybrids appearing.

I would begin with the selec varieties of Lewisia Cotyle which are sold as the Sun Strain. They range throu pinks, reds, yellows and ora and have not let me down in season. It is unrealistic to exp a true named variety am these various colours; th breed between one another freely. Only those hybrids wh are propagated from cutti and root-cuttings will keep th identity: "George Henley's" particularly good here, as terracotta flowers last from l spring into early summ

Hate wet

Ingwersens offer their Late Orange which descri itself accurately: the pinkish Trevosia is a distinctive col too, and bears its flowers longish stems. I would exh the many variations of the S set strain before looking furth

There is one essential restri to which all Lewisias resp They hate to be wet outside for the winter and they also to be watered at all freely u glass between October and e March. This suits the well winter watering is a cold tiresome business. The rose of their leaves are presuma suited to the storage of wate the summer, while I imag that winter shows keep plants covered warmly in wild in the Rockies. There not many blessings in these d of expensive heating, but th bright mountain plants for unheated greenhouse seem to be one of them. Half a d for £2 grow to go a long way the years.

TV/Radio

† Indicates programme in black and white.

BBC 1

7.05 a.m. Open University (UHF only). 9.15 For Schools, Colleges. 10.45 You and Me. 11.00 For Schools, Colleges. 12.45 p.m. News. 1.00 Pebble Mill. 1.45 Heads and Tails. 2.01 For Schools, Colleges. 3.53 Regional News (except London). 3.55 Play School. 4.20 The Wombles. 4.25 Jackanory. 4.40 The Great Grape Ape Show. 5.05 John Craven's Newsround. 5.10 The Phoenix and the Carpet. 5.40 News. 5.55 Nationwide (London and South-East only). 6.20 Nationwide. 6.55 The Goodies—Almost Live. 7.25 Into the Unknown: "Forbidden Planet," starring Walter Pidgeon. 9.00 Party Political Broadcast on behalf of the Conservative Party. 9.10 News. 9.35 The Regiment. 10.25 Sportsnight. 11.15 To-night. 11.55 Weather/Regional News.

All Regions as BBC 1 except at the following times:—

Wales—2.18-2.38 p.m. I Ysgolion. 4.40 Crystal Tipps and Alistair. 4.45-5.05 [illegible]. 5.55-6.20 Wales To-day. 6.55 Heddiw. 7.20 Pobol Y Cwm. 7.40-9.00 "Touch And Go," starring Jack Hawkins. 11.55 News and Weather for Wales.

Scotland—10.23-10.43 a.m. 2.18-2.38 p.m. and 2.40-3.00 For Schools. 5.55-6.20 Reporting Scotland. 10.25 11.15 Sportscene. 11.55 News and Weather for Scotland.

Northern Ireland—10.23-10.45 a.m. For Schools: Ulster in Focus. 3.53-3.55 p.m. Northern Ireland News. 5.55-6.20 Scene Around Six. 11.55 News and Weather for Northern Ireland.

England—5.55-6.20 p.m. Look East (Norwich); Look North (Leeds, Manchester, Newcastle); Midlands To-day (Birmingham); Points West (Bristol); South To-day (Southampton); Spotlight South-West (Plymouth).

BBC 2

6.40 a.m. Open University. 10.35 Nai Zindagi Naya Jeevan. 11.00 Play School visits Newcastle upon Tyne. 1.45 p.m. Racing from Ascot. 5.45 Open University. 7.00 News on 2 Headlines. 7.05 Trade Union Studies. 7.30 Newsday. 8.10 Pro-Celebrity Golf. 9.00 Party Political Broadcast on behalf of the Conservative Party. 9.10 One Man and His Dog. 9.40 The Velvet Glove. 10.55 Arena: Cinema: "Network" with Peter Finch—discussion: Cavalcanti talks about his career. 11.30 Late News on 2. 11.40 Closedown: Ronald Pickup reads "The Last Mystery" by Jon Stallworthy.

LONDON

9.30 a.m. Schools Programmes. 12.00 The Adventures of Rupert Bear. 12.10 p.m. Rainbow. 12.30 The Flintstones. 1.00 News plus FT index. 1.20 To-day's Post. 1.30 Crown Court. 2.00 Good Afternoon. 2.25 Marcus Welby, MD. 3.20 Rooms. 3.50 Whose Baby? 4.20 How. 4.45 Horse in the House. 5.15 London Scene. 5.20 Sportscene. 5.45 News. 6.00 To-day. 6.35 Crossroads. 7.00 This Is Your Life. 7.30 Coronation Street. 8.00 Wednesday Adventure Film: "Genghis Khan," starring Omar Sharif and James Mason. 10.00 Party Political Broadcast on behalf of the Conservative Party. 10.10 News. 10.40 The Wednesday Special: Football. 11.35 Pathfinders.

All ITV Regions as London except at the following times:—

ANGLIA

12.30 p.m. Whose Baby? 1.25 Anglia News. 2.00 Houseparty. 2.25 Cash and Company. 3.50 Mr. And Mrs. 5.15 University Challenge. 6.00 About Anglia. 8.00 The Wednesday Film: "The Double Man" starring Yul Brynner and Britt Ekland. 11.35 Music In Camera. 12.05 a.m. The Big Question.

ATV MIDLANDS

12.30 p.m. Whose Baby? 1.20 ATV Newsdesk. 3.50 Mr. and Mrs. 5.15 The Flintstones. 6.00 ATV Today. 8.00 The Mid-Week Film: "Hombre" starring Paul Newman. 11.35 The Playwright: Cecil Taylor.

BORDER

12.30 p.m. Whose Baby? 1.20 Border News. 2.00 Houseparty. 2.25 Boney. 3.50 The Mary Tyler Moore Show. 5.15 Lassie. 6.00 Border News and Lookaround. 8.00 The Wednesday Film: "Funeral in Berlin," starring Michael Caine. 11.35 The Protectors. 12.05 a.m. Border News Summary.

CHANNEL

1.20 p.m. Channel Lunchtime News and What's On Where. 2.25 The Champions. 3.50 Mr. and Mrs. 5.15 Survival. 6.00 Channel News. 6.10 Lassie. 8.00 Wednesday Feature Film: "The Moving Target." [illegible] Epilogue followed by News and Weather in French.

GRAMPIAN

9.25 a.m. First Thing. 12.30 p.m. [illegible] 1.20 Grampian News Headlines. [illegible]

GRANADA

12.30 p.m. Whose Baby? [illegible]

HTV

12.30 p.m. Whose Baby? 1.20 Report West Headlines. 1.25 Report Wales Headlines. 2.00 Houseparty. 2.25 Randall and Hopkirk (Deceased). 3.50 Mr and Mrs. 5.15 Laceybuttonpoppers. 5.20 Crossroads. 6.00 Report West. 6.15 Report Wales. 6.30 Children of the Stones. 8.00 The Wednesday Film: "The Long Duel" starring Yul Brynner and Trevor Howard. 11.35 The Collaborators.

HTV Cymru/Wales—As HTV General Service except: 1.20-1.25 p.m. Penawdau Newyddion y Dydd. 4.20 Miri Mawr. [illegible]

HTV West—As HTV General Service except: 1.20-1.30 p.m. Report West Headlines. 6.15-6.30 Report West.

SCOTTISH

12.30 p.m. Whose Baby? 1.25 Road and Weather Report. 2.00 Houseparty. 2.25 [illegible] 3.50 Mr. and Mrs. 5.15 [illegible] 5.20 Crossroads. 6.00 Scotland Today. [illegible]

SOUTHERN

12.30 p.m. Whose Baby? 1.20 Southern News. 2.00 Houseparty. [illegible] "Funeral in Berlin" starring Michael Caine. [illegible]

TYNE TEES

9.25 a.m. [illegible] 12.30 p.m. Whose Baby? 1.20 North East News and Lookaround. [illegible]

ULSTER

12.30 p.m. Whose Baby? 1.20 Lunchtime. [illegible]

WESTWARD

12.27 p.m. Gus Honeybun's Birthdays. 12.30 Whose Baby? 1.20 Westward News Headlines. [illegible]

YORKSHIRE

12.30 p.m. Whose Baby? 1.20 Calendar News. [illegible]

RADIO 1 247m

(S) Stereophonic broadcast

6.00 a.m. As Radio 2. 7.00 Noel Edmonds. 9.00 Tony Blackburn. 12.00 p.m. Paul Burnett including 12.30 Newsbeat. 2.02 David Hamilton (S) (also on VHF). 4.31 It's DLT OK! [illegible] 11.00 John Peel (S) (also on VHF). 12.00-12.05 a.m. As Radio 2.

RADIO 2 1,500m and VHF

[illegible]

RADIO 3 464m, Stereo & VHF

[illegible]

RADIO 4 434m, 330m, 285m and VHF

[illegible]

BBC Radio London 206m and 94.9 VHF

[illegible]

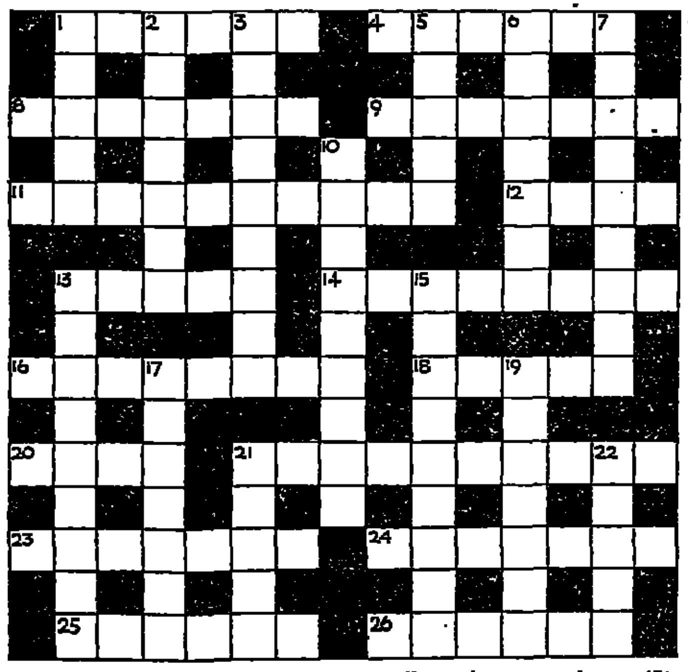
London Broadcasting 261m and 97.3 VHF

[illegible]

Capital Radio 194m and 95.8 VHF

[illegible]

F.T. CROSSWORD PUZZLE No. 3,307



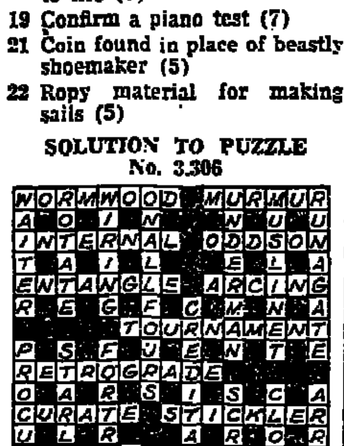
ACROSS

1 Minister snoops by road junction (6)
4 End of ground excavated (4, 2)
8 Master opponent in open-air production of Hamlet (7)
9 Officer departed to order papers (7)
11 Wash lightly with soap—the lighter the better at tea-time (6, 4)
12 Spicy item for office staff (4)
13 Period with a certain charm (5)
14 Jumper supplied with front pocket (6)
16 Originator of Alpine trunk route (8)
18 With which to achieve end of money (5)
20 Is two a flower? (4)
21 Handle correspondence and sign by the way (6, 4)
23 Stick around on railway for mafficking (7)
24 Embrace oriental wife (7)
25 Mess left by a lot of cubs (6)
26 How's that for attraction? (6)

DOWN

1 Vote wholeheartedly for stout (5)
2 One member elected upset for example by strike (7)
3 Severely criticise driver for organising savings (6, 4)
5 Sailor takes poem home (5)
6 Difficulty of having to cover up novel heroine (7)
7 Explain how to vote (3, 6)
10 Sailor goes by jet because it's smoother (4, 5)
13 Front lighting gives leading players a terrible time (4, 5)
15 Quite a few eat at night when doom is nigh (7, 2)
17 No Scots perfume is coming to life (7)
19 Confirm a piano test (7)
21 Coin found in place of beastly shoemaker (5)
22 Ropy material for making sails (5)

SOLUTION TO PUZZLE No. 3,306



s, Cambridge

The Glass Menagerie by B. A. YOUNG

Angus McInnes and Connie Booth

This most romantic of ...nessee Williams' plays has ...n given a truly romantic ...duction by Jonathan Lynn at ...mbridge. He has followed the ...t given in hero-narrator ...n's introductory speech, and ...ws us "truth with the ...asant appearance of illusion." ...sic for fiddle and harp plays ...stage when romantic words ...spoken; a roll of thunder ...mbles as sister Laura faints ...the sight of her gentleman ...ler. Saul Radomsky's out...rdly realistic set is apt to ...nge character under a ...nge of lighting.

...he Glass Menagerie is about ...playwright and his family. ...n's work in the shoe ware...se is Tennessee Williams' ...k in a shoe warehouse. ...ra's Victrola (which Mr. ...lomsky has got exactly as ...liams describes it in his ...moirs) is his sister Rose's ...trola; her lame leg is Rose's ...izophrenia. As for Amanda, ...m's stage mother, when Laurette Taylor, who played the part, met Mrs. Williams after the Chicago opening, she greeted her: "Well, Mrs. Williams, how did you like yourself?"

Such origins are unimportant in a way, and Williams plays them down in his Memoirs. But they may account for the unusually broad understanding with which he has drawn the characters, his realisation of the reverse of the coin whichever side he is looking at. In his book he calls Amanda "that old female bobcat"; yet Amanda, tiresome as she is in her excessive devotion to what she thinks of as her children's welfare, and vulgar in her execution of her schemes to that end, is still a woman dedicated to the purpose of making her children happy according to her lights.

Maxine Audley's beautiful performance allows this maternal streak to show behind all her brassy harangues. Everything Amanda does for her children she does wrong; but she does it for their benefit and Miss Audley always keeps a little in reserve when she has to descend to the extremes of absurdity, when, for instance, she comes to dinner in the flowing white dress she has extracted from some old trunk, waving a bunch of jonquils. There is love in her face as she stampedes her children into unwelcome obedience.

James Aubrey as Tom, who periodically comes downstage to describe the play to us before diving back into his part, is warm and likeable, and he too is a double-sided character. His behaviour towards his mother and sister is basically selfish (anyone who believes himself an artist always puts his own interests before anyone else's), yet he loves them both. He just happens to love himself a bit more. Mr. Aubrey has most of the poetic speeches and speaks them admirably.

Tom is never overtly rude to his sister Laura as he is to his mother. He understands the shyness that her lameness has caused in her; but the only help he gives her is to produce this gentleman caller. Jim O'Connor is patently unsuitable in the role, being already engaged to be married, but for Tom he is a ticket-of-leave, the best he can find. Laura is played by Connie Booth with a rare capacity for expressing a presence through retreat from reality. Only when her gentleman caller turns out to be her old schoolgirl idol, though now metamorphosed into an ambitious nobody, does she momentarily unwrap an apparently normal and likeable persona. Angus McInnes plays the gentleman caller with much intuition, the very model of an ambitious shipping clerk with one eye on politics and one on a solid home-life. Significantly, the offstage violin does not play when he describes a trip he took with his fiancée Betty.

Next week the production is playing at the Ashcroft, Croydon.

Television

Hapless families by CHRIS DUNKLEY

The similarities between the BBC 1 drama sextet Fathers And Families and Granada's 13 part serial This Year Next Year are too obvious to be ignored. Both are (in the inelegant but memorable words of Hugh Cudlipp when killing the Daily Herald and fathering the Sun) "born of the age we live in." They are not about Jacobeans or Edwardians or even Georgians but about us, and the problems which have come to preoccupy us, or at any rate those of us labelled "middle class."

Both are concerned with the tensions of urban society, the weakening of family structures, the rapidly changing rôle of women within the family and society, and the resultant difficulties and doubts of the patriarch in particular and of men in general.

Both feature a hitherto successful middle-aged father: in This Year Next Year it is Harry Shaw, public relations consultant, played by Ronald Hines, and in Fathers And Families it is John Malory, solicitor, played by Dinsdale Landen. Both fathers have teenage daughters of whom whey are extravagantly fond — perhaps unhealthily so.

Both daughters have run into sexual difficulties: in This Year Next Year the unmarried Kath is pregnant and the father is dead, and in Fathers And Families teenage Joanne has been having an affair with 50-plus Charles. Both fathers are, of course, having great difficulties in their relationships with their wives.

There are certainly differences between the two productions, primarily in that This Year Next Year is a serial and Fathers And Families a collection of single plays (though by one author) in some of which Dinsdale Landen's character has been dragged on by the scruff of the neck simply to validate the "series" idea, presumably.

Yet the two works are still too similar to avoid comparison, and having now seen nearly a third of This Year Next Year and a full half of Fathers And Families it has to be said that watching the one is highly entertaining and watching the other is something like purgatory.

The man trouble with Fathers And Families is that every single character is antipathetic: most of them feel hard done by; they whine much of the time and mope when there is no one to whine to; adult or child, they are portrayed as having little if any control over their lives, and they make dispiriting viewing because they are shown as being utterly dispirited themselves.

Last night's family, the Carltons, illustrated this perfectly: the father was a boorish estate agent from Metroland who felt his education was wasted on his useless job. He bullied his whining children and browbeat his wife—metophorically and literally. The next door neighbours were a hail-fellow-well-met boozer and a spiteful little interfering minx. The children were a sullen daughter and a dim-witted son.

One might be able to accept even such repugnant collections as this, were the plays and the characters in them not so uniformly humourless. They make Ibsen seem positively flippant. It is absurd to go to such lengths in the name of realism as to ensure that the noise of passing suburban trains

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underlines the dialogue, when you are presenting a group of people so unrelievedly dour and dejected as to be quite beyond the bounds of reality.

Astonishingly, however, that is not the worst of it. On the contrary, last night's play, "Winter Shapes," was easily the best so far. Though it was impossible to believe in the characters it was just possible to believe in their sort of situation, and the dialogue occasionally rang with truth, however horrid that truth might be.

In contrast the first play, "Nothing To Lose," and the second, "Mother Song," often had the ring of total falseness about them and—leaving one startled and mystified — they were characterised by poor writing, poor direction, and poor acting.

There are various ways to approach the reality of dialogue in television drama: Ken Loach and Mike Leigh have used the gritty and embarrassing "documentary" realism of very long pauses and hesitation, hiccups and repetitions—the sort of effect you would get with a verité camera if you were unlucky. At the other end of the scale there is the standard enhanced reality of theatrical convention.

Somewhere in between there is the tennis rally style of exchange which you find in pulp romance fiction in which one character stops at a key word in mid sentence and the other picks it up and carries on. In Fathers and Families this style has been used repeatedly.

"I hope you're prepared——"
"Prepared to fail?"
"—— prepared to compromise!" and
"As long as you can prove ——"
"I'm not prepared to prove anything, Mrs. Prothero," all occurred within a few minutes in one play.

The direction has been so oddly old fashioned at times—slow fades to black, very static use of cameras interspersed with an occasional mystifying movement such as a slow pan along a sleeping body—that one has been startled by the jump cuts which look out of place.

Actors could hardly be left unaffected, though Dinsdale Landen does, astonishingly, manage almost to rise above it all. Sure enough, however, some of the other performances, especially from Dorothy Bromiley as the solicitor's wife and Louise Hall-Taylor as his daughter, have been extraordinarily stilted.

Perhaps it can all be dismissed as one of those emperor's clothes clangers. Yet it is, as I remarked, startling and mystifying because you could not get more prestige or a better track record behind the production team if you tried: the producers are Mark Shivas (Glittering Prizes, etc.) and Stella Richman (Edward The Seventh, etc.), the director is Christopher Morahan (formerly one of our top directors in theatre and television, then head of BBC plays until recently, now returned to directing) and the author is John Hopkins whose 1966 quartet Talking To A Stranger is the most powerful piece of sustained drama yet to have been written for television. Morahan directed it, what's more.

It, too, was devoid of humour but it did take hold of you with both hands and enthralled for the duration. Watching it last autumn at the National Film Archive's festival, I got the feeling that Hopkins had to write those four plays.

Like Fathers and Families, John Finch's new serial This Year Next Year is set in that stratum of society where you would expect to find a successful television script writer: the vodka and tonic belt. His previous magnum opus was the brown ale serial, Sam. Luckily for us it turns out that he has an equally accurate ear for the miners' snug and the PR man's afternoon drinking club.

Finch's father figure, Harry Shaw, sick of "having to watch the muck pile up and everything fall apart" in the city, has taken his wife and teenage offspring back to the Yorkshire dales where the rest of his family has always stayed. It is one of those odd, mad, and yet inspired idealistic moves which people make, and naturally it disturbs everyone around him.

Of course, the serial has faults: the rural idyll has, so far, been altogether too idyllic—the sun shines, the curlews trill, and the effete prodigal son finds honest weariness in helping the horny-handed sons of toil to gather in the good golden hay. Also, this being a longer work, there is a good deal of hopping about as Finch keeps umpteen pots on the boil: the invalid stepson, the brother and his new wife carrying on the family's farming tradition, and so on.

Yet there is no difficulty in believing in Finch's people, or in the situations he puts them in. The lifelong dislike between Grandad and his wife is both terrible and funny, but it is also real. The desire in a professional man from the city to rediscover rhythm in the seasons and a relationship with the earth rings true. Julie Peasgood's gentle Kath, luxuriating in the dales countryside after being "bred to the rush hour" has great conviction.

Its outstanding virtue, however, as the dark contrast of Fathers and Families points up, is that while considering some of the serious problems of modern British society, it is also a highly entertaining programme. Moreover it is quite magnificent simply to look at.

★

Martin Lisemore, a BBC drama producer, died recently in a car crash. His work proves that he understood better than anyone the right and the duty of television to take the work left by posterity and turn it not into "good Trollope" or "good Dickens" but into good television. He was responsible for BBC2's recent superb production of I Claudius and his other successes in the last few years included How Green Was My Valley, Our Mutual Friend, Girls Of Slender Means, and The Pallisers. His death at 38 is an appalling loss to the millions he pleased.

World premiere on BBC TV for Athol Fugard film

Athol Fugard, the South African playwright, is the author and star of The Guest at Steenkampskraal, a new feature film which is to be given its world premiere on BBC television on Saturday, March 5. The film, directed by Ross Devenish, who also directed the feature film of Fugard's Boesman and Lena, is based on an incident in the life of South African poet, naturalist and anthropologist Eugene Marais (played by Athol Fugard) and will be premiered in BBC 2's Film International series.

The Guest at Steenkampskraal, filmed on location in South Africa, is about a nine-month experiment in which Marais made a last despairing attempt to cure himself of his morphine addiction at a farm retreat in the Transvaal. It is also a tribute to this neglected man, who is considered the founder of Afrikaans literature, and who lived from 1871 until his suicide in 1936.

estival Hall

Die glückliche Hand by RONALD CRICHTON

Schoenberg's Die glückliche Hand, is a "drama with music" ... a baritone, two mimes, small ...orus and huge orchestra, last...g for less than half an hour ...t involving a formidable ...ount of expressionist stage...aft. It was finished in 1913, ...ter the not dissimilar ...wartung. Neither work ...ached the stage until 1924: ...wartung in Prague, Die glück...che Hand at the Vienna Volk...per. It is strange to think of ...s frantic, overladen fantasy ...bbing shoulders with the beg...r students and gypsy barons ...that theatre's normal ...pertory.

It was a concert performance ...at the BBC gave on Monday, ...th Michael Gielen conducting ...e BBC Symphony Orchestra ...d Singers. Failing a producer ...o can discover a solution to ...hoenberg's demands both con...ncing and simple, concert per...rmance, radio or records seem ...be the only hope. Film treat...ent has been suggested, but ...o will make even a short ...lour film (colour plays an ...sential role in Schoenberg's ...tailed stage directions) for ...casional performance with a ...e orchestra including quad...ple woodwind and nearly 60 ...ings — not exactly a score likely to come out well on a sound-track.

Situation and treatment are from the world of expressionist painting — Kokoschka, Gerstl (whose elopement with Schoenberg's first wife is thought to have some bearing on the work) and of Schoenberg's own paintings. Those who feel the force of expressionist art without much liking it will have a tremor of foreboding as colour after colour is enumerated in descriptions of lighting changes, dreading sticky or muddy tints and surfaces tortured or chalky. Schoenberg seems to have thought in ideal visual rather than practical theatrical terms—how, on the stage of an opera house big enough to hold such an orchestra, do you make such a detail tell as a man's boot "so dilapidated as to show the bare foot on whose upper side there is a large open wound?"

In the atmosphere of symbolism and in details like the scene of toil in a cavern there are reminders of the equally laden but less fraught world of Hofmannsthal's Die Frau ohne Schatten, which Strauss had set after Schoenberg's drama but which was performed earlier. This is not intended to suggest any influence, but comparison of the two underlines one curious feature of the Schoenberg — the fact that all the apparatus is used for a score as tightly packed and concise as Strauss is abundant and prolix. The concision, though it gives the music a nightmarish power that might otherwise have been dissipated or become intolerable, has the disadvantage in the concert hall that there is barely time for those unfamiliar with the work to find their dramatic bearings. The text (by Schoenberg himself) is short, but the important stage directions, included in the programme, are not.

The single role of the Man caught in a symbolic eternal triangle was taken by Günter Reich, who had some difficulty in making himself heard—probably this was as much the composer's fault as the artists', Schoenberg's elaborate if hypersensitive instrumental textures not being helpful to a single voice. Mr. Gielen completed the concert with the Fifth Symphony of Bruckner. Well and good, but with so much work expended on a Schoenberg score unlikely to be heard often, it seemed perverse not to do it twice and play something more remote—say, a Haydn symphony—between the two performances. The audience, though by no means filling the hall, was larger than is always the case for the BBC's evenings of heroism.

Bush Theatre

Come Jubilee by MICHAEL COVENEY

The title covers two plays by T-Bone Wilson, both about West Indian couples finding their way. The first, On Your Mark, describes a working class domestic situation familiar in West Indian playwriting. Zack is a "foolish man" skiving off work in the steak and kidney pie factory with a spurious chest infection while his wife slaves in the kitchen and pours scorn on his efforts to justify his indigenous laziness.

The letter Zack is dictating to the foreman is interrupted with the news that the man in question has dropped dead. Immediately, Zack pulls on his trousers and absconds to the pub. As he leaves, Ethel types a farewell note, packs and walks out the door. More than reminiscent of Michael Abbensetts' Sweet Talk of a couple of years back, the piece ends with Zack as ignorant of her departure as he has been insensitive to her presence, coughing his lungs up for real on the crumpled bed clothes.

At least the piece has a cohesion desperately lacking in The Accident. The central joke of the longer play is overdone and not very well achieved: a would-be musical star plays house-boy to a bourgeois black couple in High Street, Kensington, before encountering his brush with the big time via a street accident. Unfortunately, the bourgeois manners and speech of the posh couple are as phoney as the house-boy's ambitions are ill-founded. "I'd like to dine among some upper crusts" burbles the stunningly beautiful Glenna Forster-Jones while her husband chatters on about their proposed move to the country and his research work for a Durex firm.

As in the first play, the grace notes are best, springing from a sensitive observation of the tensions endemic to immigrant community life in London. But some rather stretched symbolism involving a crushed poodle convinces you that Mr. Wilson's writing ability does not, as yet, match his honest intentions.

One very bright moment: Miss Forster Jones, alone on stage, wondering what it will all be like by the time she reaches 30. But, as with so much contemporary West Indian playwriting, the overall impression is of a reluctance to be critical or passionate of life in Ladbroke Grove without succumbing to the most obvious clichés of comic caricature when it comes to matters of survival and endurance in the metropolitan melting-pot.

The other two artistes, Lloyd Anderson and Allister Bain, work hard without making an indelible impression. Roland Rees directs and, with the assistance of designer Bernard Culshaw, cleverly defines the circumstantial differences between the two plays: tatty wardrobe and bedraggled record collection in the first, good-looking carpet and suburban drinks cabinet in the second.

Rock Garden, Covent Garden

Mahagonny by MICHAEL COVENEY

This lunchtime presentation ...n association with The Goethe ...stitute) is of the half-hour ...ng-play which formed the basis ...r the full-scale show The Rise ...d Fall of the City of ...ahagonny. It really comprises ...more than six songs by Brecht ...d Weill. But they are six of ...e very best and, with their ...arvellous musical settings, ...mong the most adventurous and ...mplex of the entire output. ...bove all, they require expert ...nging.

This is not what they get in ...aul Marcus's glossy cabaret ...roduction, which makes the in...mprehensible mistake of inflat...g the action where none exists ...to a series of campy staged ...gnettes: two sullen girls in ...ening dress "act" the "Ala...ama Song" when all that is ...quired is that it should be ...sung." A bevy of chorus boys ...Speakeasy pinstripes and regu...tion pasty make-up flaunt their ...ay through "Life in ...ahagonny" without any real ...ffort to communicate the heart ...f the lyrics. An orange light ...omes on while the company ...ngorously yearn for the sun in the "Benares Song." And when Mahagonny is revealed as an illusionary place, despite the abrasive assertions of "God in Mahagonny" ("One morning when the sky was grey/Swimming in whisky/God came to Mahagonny."), the company close ranks and assault the Magician who fed them tales.

The Magician is an invention of this production and the figure summarises the misguided approach. For if Mahagonny was indeed a city of illusions, there were certainly no tricks up Brecht's sleeve in discussing it. It may be dramatically neat to provide a stage metaphor in this way; but it is impossible to justify.

Mr. Marcus would have done better to hire a company of real singers and have them do battle with the music while we in the audience did the fantasising. The cast includes Simon Drake as a lissom conjuror in a leotard, Geoffrey Burridge shoring up the close harmony and Jenny Logan and Anita Dobson in search of whisky bars and beautiful boys. The translation used is that of Michael Feingold.

Arts news in brief

Mole-Richardson, the stage and studio engineers of Thetford, Norfolk, whose recent projects have included work for the National Theatre, have signed a contract with the Serbian National Theatre in Novi Sad, Yugoslavia. This is for all staging and associated equipment, including the installation of machinery, and is worth nearly £750,000.

★

A £1,600,000 appeal to build a new theatre at Pitlochry is already half-way to the target.

The appeal to build a replacement for the Pitlochry Festival Theatre, Perth, has been promised Scottish Arts Council, local authority and other cash grants totalling £900,000. The present theatre will remain open for three more seasons and the new 500-seat building is expected to open in spring, 1980.

★

Verdi's Otello returns to the repertory of the Royal Opera on February 25, with Jon Vickers in the title role. The two other principal roles will be taken by Raina Kabaivanska as Desdemona and Peter Glossop as Iago. Zubin Mehta will make his debut at Covent Garden conducting Otello in place of Tom Krause, in which Jon Vickers was originally set to sing before he withdrew last year.

Albert Hall

ABBA by ANTONY THORNCROFT

Reviewing ABBA is like reviewing a balance-sheet—the emotional contribution is dwarfed by the cash register. Any group that has sold 30m. singles and 14m. LPs and grossed over £60m. across the counter must be taken seriously, but in emotional terms ABBA hardly lives up to its commercial success. The group appeared in London on Monday for the first time in an attempt to turn its recording prosperity into an entertainment reality.

Money had obviously been well spent in lighting, on the sound system, on the backing band and singers, and on the slinky white costumes of everyone on stage. But when it came to the crunch ABBA is the formula band to beat all others. Three-minute capsules of sound with no intellectual content, just well-programmed lyrics, melodies, and rhythm.

The stage was as remote from the deferential audience as a television screen and ABBA in its communication was about as amusing as the Black Death, though that may have been because it possessed the typical Swedish sense of humour.

It was only the fact that the boys Bjorn and Benny can write the occasional good hit and that Frida and Anna can sing well and shake their bodies like any pair Swedes that has brought ABBA to the international front. Behind the few minutes of commercial cream there is a mental abyss which even the introduction of a dramatic finale based on the development of a girl like Anna becoming a superstar could not make seem important. ABBA is very successful at the basics, but the reality exposes the fragility of it all.

Berlin theatre company for the Lyttelton

Schaubühne am Halleschen Ufer, the West Berlin theatre company, is to give nine performances in German of Gorky's Sommergäste (Summer Guests) at the Lyttelton between March 3-12. Simultaneous translation equipment will be available in the theatre.

EUROPEAN NEWS

Portugal to apply formally this year to join EEC

BY REGINALD DALE, EUROPEAN EDITOR

DR. MARIO SOARES, the Portuguese Prime Minister, yesterday spelled out more clearly than ever before the steps by which he plans to achieve the full EEC membership on which his Socialist Government has staked its future.

Speaking in London at the end of the first stage of a tour of EEC capitals, Dr. Soares for the first time officially confirmed that he would lodge a formal application for Portugal to enter the Common Market after he completes his tour next month.

The next stop would be for the Nine to agree to open negotiations this year, or in early 1978 at the latest. The political decision to admit Portugal must thus be taken in the course of the next year, he said.

Looking further ahead, Dr. Soares said he was convinced that Portuguese industry would be ready for full integration into the Community by 1985. He was less clear about the precise target date for entry, saying only that he hoped his country would be accepted as a full member "much before" 1985.

Nevertheless, he appeared to be envisaging more rapid integration into the EEC than he has in past pronouncements, in which he has spoken of the need for a 10-year transition period.

Dr. Soares once again warned of catastrophic consequences if the Nine turned down Portugal's request. The Government's authority would be undermined and the country would face an unacceptable choice between strict dependence on the U.S., stagnation and isolation, or a future as "some kind of European Cuba." The Community itself could not survive for long if the countries of southern Europe became "an easy target for proletarian regimes and political instability," he said.

The attitude towards Portugal adopted by the Nine Foreign Ministers in Brussels last week was "extremely positive," he said. At that meeting, the Nine agreed that full Portuguese membership should be the ultimate aim, while stressing that time would first be needed to tackle the country's serious social, financial and agricultural problems.

Dr. Soares said that, while the main benefits to the community of Portuguese membership would be political, there would also be economic advantages. He pointed to the wider market, the fisheries and mineral resources and the scope for capital investment, which his country would offer. Portugal would also serve as a bridge between the community and the former Portuguese colonies in Africa, as well as Brazil, he added.

He had not been surprised by the "total support" for Portuguese membership which had been expressed by Mr. James Callaghan, the Prime Minister, during his London talks. He hoped that Britain would use its "prestige and authority in the community" to further the Portuguese bid.

Dr. Soares said that he was totally in favour of Spanish membership of the EEC, once that country had attained full democracy, which he believed would be in the near future. Later, Dr. Soares began the second stage of his trip with talks in Dublin with the Irish Government.

EEC Court advised on fines

BY DAVID BUCHAN BRUSSELS, Feb. 15.

FINES IMPOSED by the European Court of Justice should reflect current money values, even though they are officially set in a European unit of account that was established before exchange rates generally started to float.

This was the thrust of an opinion delivered to-day by the Advocate General, Mr. Jean-Pierre Warner, before the Luxembourg court following the case in which nine European sugar companies were fined a total of 1.6bn. units of account in December 1975, for illegal market practices.

The Advocate General, whose opinion is likely to be endorsed by the Court sitting before Easter, said that "the sugar companies must pay in their national currencies."

The companies had all decided to pay their fines—denominated in units of account—with Italian lire, which by early 1976 had fallen far below the 1969 level on which this type of unit of account was, and is still, based. The effective advantage to the French companies was 33 per cent, to the Belgian 35 per cent, to the Dutch 40 per cent and to the German 43 per cent—the amount varying according to each currency's movement.

Following EEC Commission complaints about the exploitation of this loophole, two French companies sought an interpretation from the Court, and Mr. Warner's opinion to-day is the first stage in this process.

If the Court upholds Mr. Warner's opinion, the implication is that the sugar companies will have their fines recalculated in their national currencies, and will then have to pay the difference between that and what they have already paid in lire.

France will tighten S. Africa arms policy

By Robert Mauthner PARIS, Feb. 15.

FRANCE WILL re-enforce its embargo on arms sales to South Africa, though naval equipment will still be excluded from the ban, French President Valery Giscard d'Estaing announced last night at the end of an official visit in Bamako, the Mali capital.

The French embargo on military aircraft and land armament sales to South Africa was first proclaimed officially during M. Giscard d'Estaing's visit to Zaire in August 1975. But he made clear at the time that orders already placed would be honoured.

Last night, however, President Giscard d'Estaing emphasised that not only would no new air and land military equipment be sold to South Africa, but that the French authorities had taken special measures to prevent any deliveries from slipping through the official net.

It is understood in Paris that the re-enforcement of the embargo will also put a stop to all supplies of spare parts for military equipment such as Mirage combat aircraft, helicopters, tactical missiles and transport aircraft already delivered by France to South Africa.

The measures, however, will probably have less practical effect than might appear at first sight. The Mirage and some other equipment have been manufactured under licence in South Africa for some time, and the South Africans are known to have both the know-how and industrial capacity to manufacture most of the military equipment they need.

At the same time, France, which has already supplied S. Africa with three Daphne class submarines and has received further orders for at least two 12,000-tons Agosta class submarines worth about £35m., which are due to be delivered at the end of next year, will continue to sell naval equipment to South Africa.

The official French jusification for such a dual stance is that naval equipment can be used for external defence only and can not be employed to put down local insurrections.

France's political motives are clear: it has been much criticised recently by independent African countries for pursuing an ambiguous policy. President Giscard d'Estaing may have gone some way to dispel some of the hostility, but it can hardly have escaped his hosts that his African policy continues to maintain a fine balance between France's commercial and political interests.

Paris election candidates named by Left

By David Curry PARIS, Feb. 15.

THE THREE parties forming the French Union of the Left have agreed on the names of candidates to carry their joint colours into the Paris municipal election next month. They will support 44 Communist candidates, 43 Socialists, nine Radicals of the Left and nine people of left-wing views but no formal affiliation to contest the 109 Paris seats.

More narrowly, in the nine arrondissements where the Left is given a chance of winning, it will field 27 Communists, 21 Socialists, five Radicals of the Left and four unaffiliated left-wingers. The Communists have won their battle to head the lists in all five of the arrondissements where the Left won last time round, but Socialists will lead the battle in three of the other four constituencies which the Left could win.

The Communists had accused the Socialists of trying to encroach on traditional areas of Communist strength on the basis of their much improved electoral performance over the past few years and relative decline of the Communist vote.

Meanwhile there is speculation that M. Chirac may, if he demonstrates his political power by bringing his lists in well ahead of M. D'Ornano at the first round of voting, stand down in favour of a compromise candidate.

Norway-Soviet fishing row

By William Dullforce

BRITISH fishermen may be indirectly affected by the cooling in diplomatic relations between Norway and the Soviet Union. Although Mr. Knut Frydenlund, the Norwegian Foreign Minister, said here to-day that he had received no indication that the Soviet Union was breaking off the talks between the two countries on the Barents Sea fishing, the Russians did not resume the talks at the end of January as scheduled.

A halt to these talks could delay Norway's negotiations with the EEC on reciprocal fishing rights.

A Norwegian newspaper reported to-day that the Soviet Union had broken off the talks following the expulsion by Norway of six Soviet citizens, including four diplomats and the Tass correspondent, charged with illegal activities.

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Irish torture and police issues take new turns in Dublin

BY GILES MERRITT DUBLIN, Feb. 15.

THE TWIN torture questions which have been dogging Anglo-Irish relations of late, to-day took a new turn. The Dublin Government confirmed reports from Strasbourg that the European Human Rights Court has decided to pursue the controversial torture case brought against Britain over the security forces' interrogation methods in Ulster in 1971.

At the same time, the Irish cabinet is understood to be on the point of announcing the formation of an independent complaints Board to study the recent spate of allegations of Garda police brutality triggered by a series of revelations in Ireland's leading daily newspaper.

According to Dublin officials, the Human Rights Court which heard torture charges by Ireland against Britain last week informed both Dublin and London on Friday that it would be proceeding with the case on all five main counts. The next session of the Strasbourg court is expected to be from April 19-22.

But the Irish Government has been embarrassed by the coincidence of allegations that the Republic's plain-clothes detectives—known as the "heavy gang"—employ similar physical and psychological techniques when interrogating IRA suspects. To-day, in the second of a three part series it is running, the Irish Times instanced further cases where such methods were allegedly carried out.

The allegations, in spite of the unfortunate timing of the row, are being welcomed in some government circles as giving a needed airing to the issue of occasional police brutality which in recent months has been causing growing concern. Although the Irish are quietly pointing out that the methods which may have been used by some policemen are hardly the sophisticated sensory-deprivation techniques employed briefly in Ulster, a number of Cabinet Ministers are nevertheless keen to demonstrate that brutality will not be tolerated.

The setting-up of an independent review authority may not, however, be straightforward. Elements inside the Irish Garda are known to resent the idea. At the same time, the force's rank-and-file is currently debating whether it should form itself into a trade union or a staff association. Clearly, with the government opposed to the creation of a Garda trade union, a complaints machinery could be a bargaining counter.

Yugoslavia hits at West over dissident campaign

BELGRADE, Feb. 15.

YUGOSLAVIA to-day accused the West of "poisoning the atmosphere" for the forthcoming review of the 1975 Helsinki Conference on European Security and Co-operation by dwelling on the issue of human rights.

In its counter-offensive against dissident movements in Yugoslavia and elsewhere in Eastern Europe, the Communist Party newspaper Borba said in a commentary that Yugoslavia rejected any attempts at the imposition of its population of the Western concept of liberty.

If outsiders were unwilling to accept Yugoslavia's brand of independent Communism, Borba said, "this is not a reason for anyone from abroad to strive to denigrate our system or to undermine our independence from bloc positions."

Yugoslavia has accused writer Milovan Djilas and other dissidents of being directed from abroad in a campaign to include Yugoslavia among Soviet bloc countries accused of violating human rights. Mr. Djilas has said up to 00 political prisoners are in Yugoslav jails.

The Soviet Union and Czechoslovakia have levelled similar charges against the West in a clear attempt to blame others for human rights movements begun by their own citizens.

Meanwhile, Soviet dissident Andrei Sakharov has said that an army of KGB political police agents is seeking to split the dissident movement to keep it from speaking out on human rights violations.

Professor Sakharov said the arrest of three leading dissidents this month was part of an effort to stifle the movement's voice before the follow-up conference in Belgrade in June on the Helsinki agreement.

UPI

EUROPEAN NEWS

Waldheim hopeful on N-test ban accord

By David Egli

GENEVA, Feb. 15.

IMPROVED prospects for the conclusion of a comprehensive nuclear test ban were referred to here at the opening session, after a five-month recess, of the Geneva Disarmament Conference.

In a special message to the 31-nation gathering, Mr. Kurt Waldheim, the Secretary-General of the United Nations, noted that both the Soviet Union and the United States recently had indicated a willingness to overcome the long-standing impasse with regard ton on-site inspections. There seemed, he said, "to be now a greater readiness to reach an accord in this area" which could have a major positive impact on the international situation.

The positions of the two super-powers were less explicit. The U.S. delegate, Mr. Leon Sloss, acting director of the U.S. Arms Control and Disarmament Agency, noted that his Government was currently re-examining numerous arms control and disarmament issues, including the question of a comprehensive test ban which would finally outlaw underground testing:

The complete and effective prohibition of chemical weapons is also considered a high priority task here and the U.S. has undertaken to comment on specific aspects of the draft convention, presented by Britain last August, on the prohibition of the development, production and stockpiling of chemical weapons and on their destruction. It was noted that bilateral consultations between the U.S. and the Soviet Union were continuing in an effort to reach a common approach on this question.

Reflecting the new approach of the Carter administration, it is expected that there will be greater emphasis in the current series of disarmament meetings on a reduction in international traffic in conventional weapons. According to the United Nations, the accumulations of arms "far beyond the needs of legitimate defence," now absorbs some $350bn. annually. A significant proportion of this global figure is now absorbed. Mr. Waldheim noted, in conventional weapons in areas of the world where, until recently, the arms race was relatively unknown.

Spain police believe main terrorist group is broken

BY ROGER MATTHEWS

MADRID, Feb. 15.

APART FROM five men still being hunted, the Spanish police now believe they have broken up one of the country's main terrorist groups. In an extensive report made public late last night, they revealed that 38 people have been arrested for their part in a series of bombings, police killings and kidnappings which culminated last Friday in the rescue two top officials who were being held hostage.

The entire responsibility for these events is placed on the Reconstituted Communist Party, an extreme Left-wing faction, and its military arm, Grapo. Besides the arrests, police have seized nearly 340 kilos of explosives together with a quantity of arms and propaganda.

Sen. Roberto Conesa, the police chief who was brought in to head a special anti-terrorist squad, said at a Press conference that while members of Grapo might behave like wild animals in the streets they became as docile as "little lambs" once in custody.

Under questioning, arrested Grapo members had produced the information which had enabled police to rescue Sen. Antonio Oriol, President of the Council of State, and Lt.-Gen. Villaescusa, President of the Supreme Council of Military Justice, without the need to employ weapons.

SPANISH authorities have formally legalised the status of Communist Party chief Santiago Carrillo by issuing him with an identity card and a passport, his family said yesterday, UPI reports from Madrid. Sr. Carrillo, 62, had been barred from Spain since the end of the civil war in 1939. Last year, he vainly applied for a passport in Paris and for permission to return home. He then travelled clandestinely to Madrid where he was arrested in December, charged with leading an illegal party and released on bail one week later.

The authorities also stressed that there was no other organisation behind the Reconstituted Communist Party or Grapo. The terrorists might have had contacts with foreign groups, but the police did not believe so. However, more comprehensive investigations were needed to ascertain the full extent of Grapo's activities.

Sen. Conesa declined to be drawn on the pace of police investigations into the murder of a student and five Communist Party lawyers three weeks ago in Madrid, but he hinted that progress was being made.

The length, detail and confidence of the police report on Grapo was obviously designed to calm fears about the apparent threat posed by terrorism to the Government's liberalisation programme. It was also spurred by the scepticism, not yet wholly dissipated, of the original police version immediately after the two kidnap hostages had been freed.

Meanwhile, Prime Minister Adolfo Suarez and an opposition negotiating team seem close to a compromise agreement on the terms of the electoral law which will regulate the general elections due to be held before the end of June. After a meeting between the two sides last night, it was learned that areas of difference were relatively small and no further talks on the subject were planned.

Doctors strike in Saxony

BY ADRIAN DICKS

BONN, Feb. 15.

SEVERAL HUNDRED doctors and dentists went on strike in Lower Saxony to-day, the second such militant protest in a week against the West German Government's attempts to control the soaring health costs that have contributed to the threatened bankruptcy of the entire social security system.

According both to the doctors' federation in the mainly rural Oldenburg area, and to independent reports, the federation's call for doctors and dentists to close their practices for the day was widely followed. Home visits to seriously-ill patients, however, were carried out and skeleton emergency surgeries organised by the Red Cross.

The Government now appears to face a united front of doctors, dentists, pharmacists and drug companies against its Bill to control the increase in health costs. Neither the doctors' organisations nor the drug industry have denied a report in Die Welt this morning that pharmaceutical manufacturers had contributed generously to a DM20m. fighting fund established by the doctors to publicise their complaints.

With the aid of posters, pamphlets and other well-distributed publicity material, the doctors are charging the Government with trying to "socialise" medicine in a manner that would, they claim, harm the confidential doctor-patient relationship, destroy patients' freedom of choice and affect standards of treatment. They have also furiously attacked new Minister of Labour, Herr Herbert Ehrenberg, the author both of the Bill and of a parallel measure aimed at putting the old age pension scheme back into long-term financial balance.

On the eve of a Cabinet meeting which will consider the less hysterical objections to both Bills, the Free Democrats, junior members of the coalition Government, were holding an emergency meeting this afternoon with the reported aim of smoothing relations between Herr Ehrenberg and the doctors' leaders. The FDP, though it has publicly condemned the protest actions by doctors, is not likely to forget that many of them, like other members of the liberal professions, are among its supporters.

Meanwhile, there is little sign that the doctors enjoy much public support. Many West Germans appear to be deeply shocked that they should strike, especially while protesting so noisily about the threat of socialism. Herr Ehrenberg undoubtedly struck a chord of sympathy when he accused them of trying to "blackmail Parliament."

The doctors are also having trouble persuading public opinion that their motives are not purely mercenary. Both they and the pharmaceutical industry have done very well out of a system—essentially State-financed—that has increased what it pays them more than sevenfold since 1960. The doctors' leaders expressed pain to-day, and said they feared public resentment, when Herr Ehrenberg said their average earnings were DM170,000-180,000 after deducting professional expenses. The true figure should be, they claimed, DM40,000 less, though that would still leave doctors among the very highest earners.

EEC fish stock protection details

BRUSSELS, Feb. 15.

THE FOLLOWING are the details of the fishing conservation measures adopted by Agriculture and Fisheries Ministers of the EEC in Brussels yesterday.

● A total ban on herring fishing in the North Sea from February 28 to April 30.

● Decision on the remainder of the year to be made by the Council in the light of scientific evidence on the state of herring stocks.

● A total ban on Celtic Sea herring fishing from March 1 to the end of the year.

● Commission to study possible bans on other herring fisheries off the Irish coast.

● Closure of an area to the north and east of Scotland to industrial fishing for fish meal (the so-called Norway pout box), initially from February 28 to April 30. The size of the box to be closed to industrial fishing from August 1 to be determined by the Council in the light of scientific information.

This was a key element in the compromise, reconciling the Danish demand for a smaller box, to allow more industrial fishing, and British insistence that it had already compromised far enough.

British officials are confident that scientific evidence will back their claim that the present size box, if not a larger one, is essential to safeguard whitefish stocks.

● Industrial fishing is to be subject also to a reduction in the maximum whitefish by-catch tolerance to 20 per cent. (from 25 per cent.) from April 1. Commission to put forward subsequent by-catch proposals (the U.K. originally pressed for a 10 per cent. tolerance, and only 5 per cent. of immature whitefish) before the end of May.

● Strict limits on the activities of factory ships outside the Community's 200-mile zone.

The Commission is to judge whether the Irish unilateral ban on larger vessels is non-discriminatory. But French sources suggested here to-day that only about 100 out of some 400 mainly Breton vessels fishing off Ireland would be affected. Welsh fishing boats working out of Milford Haven should also be generally exempt. The Dutch fishing fleet seems likely to be the worst hit.

TURKISH POLITICS

A coalition split all ways

BY METIN MUNIR IN ANKARA

POLITICAL uncertainty and an air of impending crisis prevail in Turkey, the outcome of which is all but impossible to guess.

The coalition of Mr. Suleyman Demirel is split. It is a moot question whether it is still a coalition of parties or independent contending Governments, so weak is the Prime Minister's control over his partners and so independently do each act. The split arises from the structure of the four-party coalition.

The leaders of the three other parties in the Government with Mr. Demirel's Justice Party are all Deputy Prime Ministers. Ministries have been divided up among the four and have degenerated into autonomous, partisan parishes. Co-operation and co-ordination among Government agencies is weak and conflict and contradiction has increased to such an extent that the Government has no consensus about any of the major domestic and international problems facing Turkey.

"The coalition no longer exists and the Government exists only in appearance," according to Mr. Bulent Ecevit, the main opposition leader and chairman of the biggest party, the social democratic Republican People's Party (RPP).

Although the 23-month-old coalition calls itself the "Nationalist Front" (against Communism) it is in reality a confederation of fronts. What has kept it intact so far is the desire of all to remain in power until the General Election, scheduled for next October, and each to campaign from a position of strength. In the meantime, each party is busy using the spoils of authority to strengthen its electoral backing.

The split between Mr. Demirel and Mr. Necmettin Erbakan is particularly visible and important. Mr. Erbakan's Islamic revivalist National Salvation Party (NSP) is the biggest and most indispensable of Mr. Demirel's allies. Although the NSP controls fewer than 50 seats in the 450-member assembly, less than a third of Mr. Demirel's pro-private enterprise Justice Party, Mr. Erbakan tends to act as much of a Prime Minister as does Mr. Demirel.

Mr. Erbakan knows he is indispensable, and he knows that Mr. Demirel knows. Mr. Erbakan also knows that without his support neither the Justice Party nor any other party can form a Government under the present circumstances.

Mr. Erbakan and Mr. Demirel have kept together by what amounts to blackmail and counter-blackmail, most of it being done by the former. In the latest instance, Mr. Erbakan forced Mr. Demirel to make an allocation of about $1bn. in the budget for heavy industry projects of doubtful feasibility. The weekly news magazine Yanki has calculated over 30 such instances in which Mr. Erbakan generally got what he wanted.

Under these circumstances it is difficult to believe that Mr. Demirel will be able to settle foreign policy issues like Cyprus and relations with Greece, the EEC and the U.S. Although peace talks in Cyprus have been revived and talks are underway on the Aegean problems with Greece, the Government is split on them. Mr. Erbakan has strongly nationalist views on these matters, and his power may block any agreement that the more pragmatic Mr. Demirel may hope to reach.

Matters are getting out of hand, but nobody knows what is likely to happen next. Martial law, military intervention, early elections, continuation of the Nationalist Front, and a new coalition: all are among the possibilities endlessly dissected on the Ankara cocktail circuit.

In scores of small and big ways the coalition's performance has aroused discontent, and not in opposition circles alone. Big business and even the Army have shown signs of displeasure. A point has been reached where it is being debated whether Mr. Demirel will be able to keep his coalition in one piece until the General Election seven months hence.

One of the coalition leaders, Professor Turhan Feyzioglu of the Republican Reliance Party (RRP), has threatened to pull out unless the Government's performance improves dramatically and the partners stop contradicting each other. Mr. Feyzioglu has fewer than 10 seats in the assembly so, arithmetically, Mr. Demirel could survive his resignation, but psychologically it would be a blow.

Some observers have detected a sinister note in Mr. Feyzioglu's threat to quit—the Defence Ministry is a Feyzioglu parish and it is being asked whether he has got wind of something from the Army.

Recently a confusing signal of discontent has come from the military, or rather from a senior officer. General Irfan Ozaydinli, a four-star Air Force General and member of the Supreme Military Council delivered a letter to the Prime Minister and Council members criticising the coalition. He expressed displeasure with its performance and claimed that it had undermined the State's prestige.

It is not known to what extent Gen. Ozaydinli spoke for the Army as a whole, or what he is going to do if he is disregarded. However, the fact that he felt strong enough to make this political move (and leak it to the Press personally) is significant and a reminder that when matters get out of control the Army can intervene in politics, as it did in 1960 and 1971. No one should know this better than Mr. Demirel, who was himself ousted by the Army six years ago.

The carnage among Turkish students has added a taint of crisis to the coalition's problems. About 130 students have been killed and over 1,000 wounded in armed clashes between Left and Right wing groups during the Demirel administration. For the second year running, higher education has been seriously disrupted with many faculties closing down more than once.

Matters are getting out of hand, but nobody knows what is likely to happen next. Martial law, military intervention, early elections, continuation of the Nationalist Front—and a new coalition: all are among the possibilities endlessly dissected on the Ankara cocktail circuit.

Probably the most feasible and most sensible is an early election, which would avert whatever crisis may be looming ahead and which might inject new vitality into Turkish democracy. Both Mr. Demirel and Mr. Ecevit, who has been surprisingly ineffectual in his role as main opposition leader, have cautiously said that they may consider an election in June. All other party leaders, excluding Mr. Erbakan, also seem to be willing. It is difficult to be optimistic on this count, however, because in the past Turkish parties have rarely managed to achieve unselfish co-operation.

In any case, nothing dramatic is likely to happen until the beginning of next month when the 1977 financial year budget will have been legislated, something all parties want to see out of the way. After that, in the words of a Western diplomat, "anything can happen."

OVERSEAS NEWS

Arafat appeals for Arab move to restrain Syrians

BY IHSAN HIJAZI BEIRUT, Feb. 15.

INTENSIVE contacts are under way to avert another large confrontation between Palestinian commandos and Syrian troops of the Arab Peace-Keeping Force around the refugee camps here.

Mr. Yasser Arafat, the chairman of the Palestine Liberation Organisation, has sent cables to Arab heads of state, calling on them to intervene with the Syrians to head off what Palestinians fear to be an imminent onslaught on the camps. To-day, he had talks in Damascus with Prime Minister Abdel-Rahman Khleifawi, after flying here from Cairo, where he met President Anwar Sadat.

After the clashes last week in and around the Sabra, Chatila and Borj Brajneh camps at the southern end of Beirut, Syrian tanks have ringed the camps. The Syrians have also mounted mortar guns on sand dunes overlooking the camps not far from the Beirut international airport.

The Syrian command is particularly angry over the killing of a Syrian officer during the fighting last week. A statement by the command said that he was shot dead after he had been wounded. It now insists that those responsible must be handed over. The situation in the area of the camps, and in West Beirut in general, remains very tense.

In his cables to Arab heads of State, Mr. Arafat appealed to them to stop the Syrians from storming the camps.

Press reports here to-day said that Palestinian leaders last night met Lt.-Gen. Ali al Shaer, the Saudi ambassador, and Mr. Ahmed Lotfi Metwalli, the Egyptian ambassador, and that the handing over of those responsible for last week's clashes was discussed.

Gen. al Shaer and Mr. Metwalli are members of the Arab commission of four assisting President Elias Sarkis in the implementation of the Arab-sponsored peace plan for Lebanon. The commission, which also includes the Kuwaiti ambassador here, Sheikh Abdel Hamid al Baitjan, and Syrian Col. Mohammed al Kholy, was reported to be planning to hold an emergency meeting to-morrow under President Sarkis. The meeting was unexpected, since an announcement last Saturday, when the committee met, declared that the Arab body had accomplished its mission.

The Lebanese authorities are eager to keep the situation under control because this is a crucial week for diplomatic activity on a Middle East settlement. The French Foreign Minister, M. Louis de Guiringaud, is scheduled to arrive here to-morrow on a two-day visit, while U.S. Secretary of State Cyrus Vance, is expected in Beirut on Friday.

Vance to meet insecure Rabin

BY TOM ACKERMAN JERUSALEM, Feb. 15.

MR. CYRUS VANCE, the U.S. Secretary of State, arrived here to-night for the first leg of a Middle East tour to seek the outlines of a commonly acceptable approach for reviving Arab-Israeli peace talks. His tour will also take him to Egypt, Lebanon, Jordan, Saudi Arabia and Syria.

Israeli officials, who will begin a day of discussions with Mr. Vance to-morrow, believe that the Carter Administration expects to implement no new initiative before the Israeli general election here in May.

The real prospect that Mr. Yitzhak Rabin will no longer be Prime Minister after the vote appears to underline Mr. Vance's talks. In contrast to most of Dr. Henry Kissinger's visits here, his successor has asked to meet separately Mr. Rabin and Mr. Shimon Peres, the Defence Minister, his rival for the Labour Party leadership, which is to be decided next week.

Attention has been further diverted from the Secretary's visit by the strong whiff of scandal surrounding two of Mr. Rabin's close Cabinet allies. They were named yesterday in a Tel Aviv court confession as the alleged solicitors of and conduits for cash contributions to the party, which were originally gathered as bribes and kick-back money three years ago.

While Mr. Rabin was not personally implicated, his Finance Minister and principal party mentor, Mr. Yehoshua Rabinowitz, is now the target of demands that he set aside his duties until the allegations are investigated.

Moroccan rebels jailed

BY OUR OWN CORRESPONDENT CASABLANCA, Feb. 15.

HEAVY prison sentences were imposed to-day on 176 Marxist-Leninists convicted of plotting to overthrow the Arab Kingdom of Morocco and set up a republic.

After a six-week trial, 44 of the accused were sentenced to life imprisonment, the maximum penalty, and the remainder to prison terms ranging from five to 30 years. In addition, all the 137 accused present in court (39 others were tried *in absentia*) were sentenced to two years in prison and fined 5,000 dirhams each for contempt of court by signing letters to public officials in which they described Moroccan justice as Fascist.

The leader among those awarded the maximum penalty was Abraham Serfaty, a Moroccan Jew and mining engineer. Formerly a militant of the outlawed Moroccan Communist Party, Serfaty was to have been the first president of a Moroccan republic after the violent overthrow of King Hassan II, according to the prosecution.

The prosecution said the plotters indoctrinated students and intellectuals in Marxist-Leninist dogma, and had planned to set up an underground Red Army to overthrow the 1,000-year-old monarchy.

The accused—most of them young teachers, student leaders and technicians—were convicted of plotting against the regime, incitation to civil war, forming illegal organisations and forging official documents.

Oil imports upset Japan trade balance

TOKYO, Feb. 15.

JAPAN had an unfavourable trade balance of $901m. in January because of increased crude oil imports, the Finance Ministry announced to-day.

The Ministry said that exports amounted to $4.735bn. up by 29.8 per cent. over the same month of last year, and imports cost $5.636bn., up by 17.9 per cent. Imports of crude oil for the month rose by 29.1 per cent. over last year's level in anticipation of price increases by members of the Organisation of Petroleum-Exporting countries, the Ministry said.

Chinese gold sales suggest payments balance problems

BY COLINA MacDOUGALL

CHINA sold 80 tonnes of gold worth $350m. on the London market in December, British trade figures have revealed.

This is believed to be an emergency measure to cope with balance of payments difficulties, rather than the beginning of a long-term programme of sales. Early in 1976, China was reported to have sold between 12 and 24 tonnes in London and Zurich, which was also taken as a sign that Peking was short of foreign exchange.

China has had considerable difficulty in balancing trade since 1973 because of its large programme of industrial imports and problems in finding suitable exports. Its oil sales, expected in 1973 to prove a bonanza, ran into problems of quality, and because of the world recession. In 1974, its hard currency deficit was estimated at $1.3bn. In 1975, it was about $700m.

Last year, however, preliminary estimates suggest that Peking may have got out of the red, but only by stringent reductions of imports.

With a new leadership installed, and the effects of the disastrous earthquake at Tangshan last July, there is an obvious desire in Peking to step up trade. It is puzzling that China should decide to sell gold rather than raise money through the international banking sector, but its traditional dislike of debt frequently holds it back from normal borrowing. By the end of November too, the price of gold had recovered from its late Summer low of about $104 an ounce to about $133 an ounce.

It is most unlikely that China would finance any long-term industrialisation by regular sales of gold, as it is only a very small producer. However, it frequently holds a proportion of its reserves in gold as a hedge against inflation. In the past couple of years, it has had to dip into these because of its hard currency shortage.

Top leadership in Yunnan province reshuffled

BY COLINA MacDOUGALL

IMPORTANT changes made by Peking in the leadership in Yunnan province indicate that a substantial purge in the province may be on the way.

The top party and Government posts have gone to An Ping-sheng, hitherto head of the adjoining province of Kwangsi. Although the holder of the key post of regional military commander remains unchanged, the new provincial head has also been given two senior military posts in Kunming, the provincial capital. The distribution of jobs between both civilian and military argues that power is still evenly balanced between the two sectors.

At the same time, three lower-level officials were appointed to the province's party and Government administration, one a former party secretary from Shanghai who lost his job in 1966 when the radicals, now under attack as the Gang of Four, first came to power there. The other two are senior officers from the Kunming military region.

Yunnan has reported serious factional troubles over the past year or so. The reshuffle is evidently part of an effort to restore order in a situation which the central Government regarded as serious enough to summon the leaders to Peking for a conference.

The Gang of Four was earlier reported to have had a "faithful follower" in Yunnan. The displaced provincial head, whose current fate has not been reported, mentioned last November that rumours and posters attacking Chairman Hua Kuo-feng had been circulating. Unrest in the province is the more serious because of its position along the border with Vietnam, Laos and Burma.

In the national context, the reshuffle in Yunnan is important as it is the second extensive provincial leadership change since Hua's accession to power. The first was in Shanghai where the Gang of Four and its adherents were dismissed.

The latest move suggests that Peking's control of the provinces is tightening. However, a People's Daily commentary at the end of last week, which stressed the need for party consolidation, said frankly that "some places" were seriously affected by the Gang of Four and "struggle in those places was relatively complicated."

Sri Lanka emergency ended

By Mervyn de Silva

COLOMBO, Feb. 15.

SRI LANKA'S six-year-old state of emergency will end to-morrow and, in preparation, all political detainees have been released, a ban on the Sun newspaper group has been lifted and elections for local bodies have been scheduled for next month.

The President can still declare an emergency but he will have to summon Parliament, which has been prorogued until May 19. The emergency was proclaimed in March 1971, when a Marxist youth organisation, the People's Liberation Front, launched an insurrection. The ban on this group has also been removed.

The Sun group's presses were sealed three years ago when it supported a mass protest organised by the Right-wing UNP, the main opposition party. Youths belonging to a separatist Tamil movement who were detained under the emergency were released yesterday.

Nigerian mediator in E. Africa

By John Worrall

NAIROBI, Feb. 15.

THE NIGERIAN Commissioner for External Affairs, Brig. Joseph Garba, is in East Africa to mediate between Kenya and Tanzania in the bitter dispute which has arisen between them over the collapse of East African Airways (EAA).

The Tanzanians have closed their border with Kenya and held up large numbers of Kenyan vehicles and light aircraft. Brig. Garba arrived here to-day from Tanzania where he had talks with President Julius Nyerere.

A new turn in the dispute between Tanzania and Kenya is an attempt by Tanzania to hinder Kenyan trade with Zambia. Several Kenyan lorries, which had passed through the Tanzanian border before the closure on their way across northern Tanzania to Zambia, have been held up. There are reports here that some lorries had been looted by Tanzanian soldiers.

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POLITICS IN WEST BENGAL

Divided Congress machine begins to lose its grasp

BY DAVID HOUSEGO, RECENTLY IN CALCUTTA

MRS. GANDHI'S emergency brought a relief from turbulence to West Bengal. Political killings had reached a peak in 1972 when squads from the Congress youth movement eliminated their rivals in the radical Marxist faction of the Communist Party (the CPM), and then rounded off their victory by decisively rigging the elections to the Bengal state assembly.

But until Mrs. Gandhi proclaimed the emergency in June 1975, strikes, lock-outs, street agitation, and the beating up of political opponents were routine events in Calcutta.

India's General Election

The renewal of political life brought by the current election has been welcomed in Calcutta, which does not forget that it was once the political hub of India, from which sprang the original impetus for self-rule. But there is also the fear—on which Mrs. Gandhi, who has chosen West Bengal for the start of her campaign tour next week, is capitalising—that the elections will unleash new violence.

For industrialists the emergency has brought higher productivity. But labour is bitter about the loss of the right to strike, the drop in wages that followed the abolition of bonus payments, lay-offs of "temporary" workers, and in recent months the rise of living costs. Isolated wildcat strikes have taken place in the Bengal-Bihar heavy industry belt, and in the depressed textile and jute industry.

At the end of last year there was a major, if unpublicised, strike in the tea plantations, which have been booming as prices have risen. "But we have not been able to organize the general strike we wanted," says Mr. Jyoti Basu, the CPM leader and a former Deputy Chief Minister in Bengal when the party was in power in the late 1960s. The election is giving the CPM the opportunity to reform its organization, which was shattered by the violence of 1972. On Mr. Basu's figures 16,000 party workers, driven away four years ago by Congress youth gangs, are still prevented from returning to their homes or work. Congress officials in part confirm his account. Mr. Subrata Mukherjee, the state Minister for Information, recently gave a private warning that if the CPM tried to return to his Ballygung area of Calcutta they would be beaten up.

In free and fair elections the CPM would sweep home with a majority, Mr. Basu claims. But he recalls the violence of the last elections and how Congress kept the opposition from the polls or stuffed ballot boxes with false papers. He says that pattern could be repeated, conveniently forgetting that the CPM used the same tactics of violence and intimidation in the 1960s.

None the less, the CPM's popularity is conceded by Mr. Lakshmi Kanta Bose, head of the Congress run National Labour Co-ordination Committee and a senior party official. He doubts whether Congress workers would vote for Mrs. Gandhi in a secret ballot and, what is more important, believes that the CPM has made deep inroads in the countryside. About 30 of Bengal's 42 constituencies are rural.

Mr. Kanta Bose is one of the young fringe politicians who rode to power in the gang warfare of 1972. A heavy, bulldog figure, he uses the language of Chicago gangster films. "We will give them a quiet going-over," he says of CPM workers who set foot in what he regards as Congress territory. "Muscle is necessary in politics here."

The Bengal Youth Congress readiness to kill and be killed has been the strength of the state Congress machine. With its support Congress could normally expect to win about 30 of the Parliamentary seats. In eight constituencies, Congress is not putting up candidates, as part of an electoral pact with the Moscow-oriented Communist Party of India.

But splits within the state party make it unlikely that Congress will get more than 20-22 seats. The splits have their origin in personal rivalries, but have been sharpened by Mr. Sanjay Gandhi's intervention in Bengal politics last year. Seeing West Bengal as a potential political base, he unsuccessfully tried to oust Mr. Ray from his post and to replace him with a member of what has come to be known as the "Sanjay" faction in Bengal.

Until the resignation of Mr. Jagjivan Ram overturned all Mrs. Gandhi's calculations, it looked as though her son would nominate most of the Congress candidates for Bengal. Since then however Mr. Ray has had the upper hand, gaining popularity by appealing to Bengali nationalism against interference from Delhi.

The mainstream of the party in Bengal is thus providing help to the centre or to Congress candidates considered to be Sanjay followers. In a number of cases Mr. Ray's supporters make clear they will help a Janata Party (the anti-Gandhi grouping) gain a seat to keep out either the CPM or the Sanjay faction. Such infighting is bad news for Mrs. Gandhi, who needs victories in Bengal to make up for the losses she seems likely to suffer in the key state of Uttar Pradesh, Bihar, and Orissa.

Congress disunity could however dampen organised electoral rigging and open harassment of political opponents such as Bengal witnessed in 1967-72. A restraint on violence would also be welcome to the business community. The enforced industrial peace has at least arrested the decline of Bengal as a major industrial centre. But the fear is that it was enforced now adds to the uncertainties.

Business support for Mrs. Gandhi has been tempered by dislike of Government measures such as dividend restraint, arbitrary price cuts, and her son's patronage of a number of favoured firms. The encouragement of the private sector, towards which Mrs. Gandhi seems to be moving before the elections, was taken as a hopeful sign. But that policy could take a knock if, as seems likely, the elections produce a majority in the Parliament to the Left of Centre.

ENTERTAINMENT GUIDE

AMERICAN NEWS

Steel union presses wage, job security claims in talks

BY STEWART FLEMING

NEW YORK, Feb. 15.

COLLECTIVE bargaining for a three-year contract in the steel industry is under way, with the United Steel Workers union pressing, as expected, for increased wages and lifetime job security.

The basic steel industry talks involve the 10 largest steel companies in the U.S. and their 1,000 employees who belong to the USW. The negotiations open what is expected to be a year of intensive collective bargaining. Contracts are due for re-negotiation in the construction industry with 18 craft unions covering 828,000 workers, telephone communications with 735,000 workers, bituminous coal with 125,000 workers, railroads with 456,000 workers and retail food with 400,000 workers.

A recent report by the U.S. Government's Council on Wage and Price Stability concludes that in labour negotiations unions will be putting increased emphasis on job and income security.

At a Press conference yesterday, Mr. I. W. Abel, the retiring president of the USW who is leading the union in the talks, said the lifetime security plan sought by the union would mean "a job for life with a decent, respectable income for life."

The union, it seems, is pressing for a guaranteed minimum number of hours of work each year for steel workers, regardless of fluctuations in the business cycle. The union is likely to press also for improved pension benefits, such as a cut from 30 years to 20 years in the qualifying period for a pension, and perhaps a special provision for early retirement of workers whose plants are to be closed or whose jobs are threatened by technological change.

Important details remain to be settled before April 7 when the contract settlement must go to binding arbitration.

The union has given no indication of what wages it will demand but has criticised as an interference in collective bargaining the Wage and Prices Council report which drew attention to the high wages in the steel industry.

Average earnings in the industry, including overtime and cost-of-living allowances, are around $8 an hour.

Reuter adds: U.S. steel production for the first six weeks of 1977 was 8.3 per cent. below 1976 levels, the Iron and Steel Institute said.

Production up to February 12 totalled 12.638m. tons, down from 13.778m. in the 1976 period. Industry sources said the drop in production this year reflects disruptions caused by severe winter weather, which closed some steel mills, and weaker demand.

Young warning on Africa

BY OUR OWN CORRESPONDENT WASHINGTON, Feb. 16

MR. ANDREW YOUNG, the U.S. Ambassador to the United Nations, said last night that the Russians are "playing games" in north eastern Africa and that the situation there was potentially more explosive than in southern Africa.

His off-the-cuff remarks to reporters at last night's state dinner for the President of Mexico appeared, not for the first time, to take the U.S. State Department by surprise. A spokesman said that his remarks were being "studied."

Meanwhile, in an interview in to-day's Washington Star, Mr. Young said he had telephoned Dr. Henry Kissinger to apologise for his remarks in London over the weekend. Mr. Young had said that Dr. Kissinger had expected to be re-appointed Secretary of State after a Ford victory in the recent presidential elections and then "take it all away from the British."

Boeings fitted 'with uncertified parts'

By Jurek Martin

WASHINGTON, Feb. 15.

THE FEDERAL Aviation Administration has revealed that uncertified parts have been installed in as many as 100 U.S. airliners manufactured by the Boeing Aircraft Corporation.

The FAA stressed that there was no evidence that the parts were dangerous or substandard, but the fact that they had not received official certification prompted the agency to order the five U.S. airlines flying the Boeing 727s and 737s to remove the parts within 45 days.

It is the second case of such a kind to come to light in the past few days. Over the weekend, allegations were reported that suggested that a much larger quantity of helicopter parts may have been sold around the world with improper certificates.

In the airline case, the FAA said that the parts in question were mostly electronic, used in aircraft flaps, slats, flight instrument accessories and air conditioning units.

The agency said that the parts were made by a small company which sells replacement parts to the aircraft industry. Another company, it went on, had issued service tags representing the parts as having been made and tested by Boeing.

Falklands have 'brilliant' outlook

BY HUGH O'SHAUGHNESSY

THE ECONOMIC future of the Falkland Islands, the isolated British colony in the south-west Atlantic, is "brilliant." Their gross national product rose very rapidly last year as a result of booming wool prices, and the unexploited potential in fisheries, alginates and perhaps oil is very large.

This was stated in London yesterday by Mr. W. Hunter Christie, Honorary Secretary of the U.K. Falkland Islands Committee, a body formed to lobby for the opinions of the 1,900 islanders and counter the influence of Argentina, which claims sovereignty over the territory.

His optimistic forecast of the islands' future came in sharp contrast to the gloomier view of the Foreign and Commonwealth Office, as set out in the Commons earlier this month, and was timed to coincide with the visit to the islands of Mr. Ted Rowlands, the Minister of State at the FCO. Mr. Rowlands is due to fly to the Falklands this morning after an overnight stop in Buenos Aires.

Mr. Christie, who shared a platform with Sir Miles Clifford, a former Governor of the territory, Mr. Ralph Merton, managing director of Alginate Industries, Mr. Mark Mitchell, secretary of the Falkland Islands Company (a subsidiary of Charrington Gardner Lockett), and Mr. Mike Summers, a young Falklander, expressed great disappointment at the British Government's decision not to proceed with the expansion of the airfield at Port Stanley.

Any major economic project would have to depend on the provision of an airfield capable of taking medium-range airliners, he contended. Mr. Christie added that the conduct of officials at the FCO in making important concessions to the Argentine Government, such as giving it effective control of access by air to the islands, failing to provide a passenger service by ship there and seeking to give control of fuel supplies to YPF, the Argentine state oil company, was tantamount to acting in bad faith with regard to the islanders' wishes.

The statements by the committee, which is mounting an urgent campaign against what it considers a sell-out to Argentina, may well be the start of a more active debate about the future of the colony.

The FCO announcement in the Commons on February 2 was unexpected, caught the pro-Falklands lobby relatively unprepared and aroused relatively little interest.

With the price of wool still rising, the fortunes of the Falkland Islands Company was prospering, and there is speculation that its trading profits in the islands last year could be up to five times the sum of around £100,000 it earned in 1975. British United Trawlers and the Japanese company Toyo are to start a fishing venture in Falklands waters this year with a factory ship.

U.S. fails to stop German nuclear deal

BY DAVID BELL WASHINGTON, Feb. 16.

NUCLEAR talks between the U.S. and W. German Government over the sale of German nuclear power technology to Brazil have failed to persuade the Germans to back down on their $8bn. contract signed up in 1975.

But talks, nonetheless, are to continue, while the U.S. tries to eprsuade other nuclear exporting nations to tighten the terms of sales to nations which—like Brazil—refuse to sign the Non-Proliferation Treaty.

The Carter Administration has been trying ot persuade Germany and Brazil either to delay or call off part of heir contract, which involves not only the sale of nuclear reactors, but also help in constructiong a uranium enrichment plant and a facility for reprocessing spent nuclear fuel.

The main U.S. objection centres on the enrichment and reprocessing facilities, on the grounds that these so-called "sensitive technologies" could give the Brazilians the capacity to produce nuclear weapons.

Mr. Carter has argued strongly for a ban on the transfer of "sensitive technologies" between countries that possess such technology and those that do not. The German deal has been sharply criticised here in recent weeks because it is considered to breach the tighter non-proliferation guidelines that the new Administration is stressing.

During talks here last week Mr. Warren Christopher, the Assistant Deputy Secretary of State Designate, is understood to have offered both Brazil and Germany guaranteed supplies of enriched uranium for their reactors if they would agree to drop that part of their contract relating to the sensitive technologies. Alternatively the U.S. is reported to have urged the Germans to delay the transfer of these technologies to Brazil until arrangements had been discussed for the proposed regional centres for nuclear fuel processing, under international control.

THE CARIBBEAN

Protecting the Press

BY DAVID RENWICK, PORT OF SPAIN CORRESPONDENT

[AF]TER TWO years of planning [an]d discussion, the Caribbean [Pr]ess Council (CPC) has finally [co]me into being. Based on the [Br]itish model, the CPC has been [es]tablished by the Caribbean [Pu]blishing and Broadcasting [As]sociation (CPBA), the [re]gional body of media adminis[tra]tors representing 33 news[pa]pers and radio and TV stations [fr]om as far north as the Bahamas [an]d as far south as Guyana.

The chairman is Mr. Aubrey [Fr]aser, a distinguished Caribbean [ju]rist and former judge of the [Tr]inidad and Tobago Appeal [Co]urt, now director of legal [ed]ucation the Norman Manley [La]w School, Jamaica.

There are 16 other members, [ei]ght representing the public, [fo]ur working journalists selected [by] newspapermen's associations [in] the region and four media [m]anagers from the CPBA.

The appearance of the Press [C]ouncil is an acknowledgement [by] CPBA members that, in a [pa]rt of the world served by at [le]ast 13 different Governments, [th]ere can be no guarantee that [al]l public authorities, or even [a] majority of them, will con[ti]nue to respect the Western [co]ncept of Press freedom that [w]as inherited as part of the [B]ritish colonial tradition.

The Council is a reaction to [th]e gradual encroachments that [m]any Governments of the Carib[b]ean Community (Caricom) [h]ave been making into the idea [o]f an independent Press.

Many of these encroachments [we]re made in the guise of acting [i]n the public interest, such as [t]he heavy bonds that some [C]aricom states now require news[p]apers to post before they can [e]xist. These effectively threaten [t]he survival of many of the [r]egion's small publishers already [o]perating on economic shoe[s]trings but have been presented [a]s being necessary to make [n]ewspapers more "responsible" [a]nd to demonstrate financial [s]oundness in advance of any [p]ossible suits for libel.

The CPBA is acting on the [th]eory that if there is an agency [w]hich can be seen to be willing [t]o put the Press's own house in [o]rder and to which members of [th]e public (including Ministers [o]f Government) can turn to have [g]rievances rectified, those [C]aricom territories contemplat[in]g restrictive legislation may be [p]ersuaded to think again.

The Press Council is charged [w]ith the duty of processing com[p]laints from the public about [P]ress conduct and, likewise, com[p]laints from the Press about the [co]nduct of people and organisa[ti]ons (including Governments) [t]owards it. The Council is also [m]eant to help safeguard Press [f]reedom and to maintain, and [i]mprove upon, journalistic [st]andards.

The Council's headquarters [w]ill be in Jamaica, where both [M]r. Fraser and the secretary, Dr. [E]verold Hosein, acting director [o]f the Institute of Mass Com[m]unications, University of the [W]est Indies, live, but it will [a]ttempt to sit in different [C]aricom locations from time to [ti]me to deal with the matters [b]rought before it in order to give [a] practical dimension to its [r]egional responsibilities.

The Council begins life at a [ti]me when the debate on the role [a]nd function of the Press in [C]ARICOM is at its height in [m]any of the territories.

Although the frontiers of free[d]om have recently been expanded [sl]ightly with the decision of [P]remier Vere Bird's Government [i]n Antigua to repeal the laws [in]troduced by the former Govern[m]ent, which required newspapers [t]o obtain a licence from the [C]abinet before being published [a]nd to deposit a $10,000 Eastern [C]aribbean bond (about £1,990) as [a] surety against libel claims, the [p]ressures on the regional Press [r]emain severe.

Tight Press laws still exist in Dominica, St. Kitts-Nevis, Grenada and Guyana. The Dominican Seditious and Undesirable Publications Act, 1968, allows the Government to stop the publication of a newspaper for three months, or longer, by a simple administrative order, without the need for a State of Emergency to be declared, on the grounds that such prohibition is necessary for the purposes of "defence, public safety, public order, public morality, the protection of the reputations, rights and freedoms of persons and the prevention of the dissemination of false statements and wilful misrepresentations of facts prejudicial to the public interest."

In St. Kitts-Nevis, the Press and Publications Board Act, 1971, makes it an offence to "write, print, publish, circulate, sell or distribute" matter that is deemed to be, among other things, "scurrilous, seditious or blasphemous" or which, in relation to the Government or any member of it is "false, scandalous, and malicious with the intent to bring the Government into hatred, ridicule or disrepute" or which is "intended or calculated to malign or injure the reputation of the state, or to bring the name of the state into contempt, hatred or ridicule."

The Grenada Newspaper (Amendment) Act of 1975 forbids anyone to publish or print a newspaper unless they have first deposited $20,000 EC (about £3,990) in cash, or Government bonds, with the Accountant General "to be drawn upon in order to satisfy any judgment for libel given against the printer, publisher or proprietor of a newspaper or any writer therein."

The radical Grenada opposition party paper, The Jewel, mouthpiece of the New Jewel Movement of young intellectuals, refused to comply with the provisions of the Act (it simply couldn't find the money) and went underground, from where it has been appearing sporadically since.

A similar situation obtains in Guyana, where a duplicated, foolscap-size publication called Dayclean, the organ of the far-Left Working People's Alliance group, is now being produced from clandestine locations because it declined to abide by the provisions of the Publication and Newspapers Act, 1972.

This Act says that no newspaper, or pamphlet, can appear unless the publisher, and two sureties, each post bonds worth $5,000 (about £980) obliging the publisher to pay every fine imposed upon him "by reason of any conviction for printing or publishing any defamatory libel."

A greater threat to Press freedom in Guyana stems from the actual State ownership of the Press. Guyana is the only Caricom territory in which the Government, as distinct from the party from which the Government may be drawn, actually owns newspapers.

The only morning paper, the Guyana Chronicle and the only evening paper, The Citizen, are both State-owned. One of the two radio stations, the Guyana Broadcasting Service, is also in the Government's hands.

This situation has caused tensions within the ranks of the CPBA, because the representatives of the Guyana State-owned media sit in that body alongside representatives of private sector newspapers and radio stations and the two parties, not surprisingly, find it difficult to agree on such fundamental issues as the degree of freedom that must be enjoyed by the Press.

At the CPBA's annual general meeting in Tobago last month, the two Guyana representatives actually walked out after the outgoing president, Mr. Ken Gordon of Trinidad, said that he was convinced that freedom of the Press had "long ceased to exist in Guyana."

WORLD TRADE NEWS

New Courtaulds initiative in Far East markets

BY RHYS DAVID, TEXTILES CORRESPONDENT

COURTAULDS is to open a new office in Japan this month in a bid to expand its already rapidly growing trade in fibres and fabrics with the emerging textiles producers in the Far East.

Courtaulds, which has had a substantial business for some time with China, has seen a significant increase in sales in recent years to various other countries in the area including South Korea, Taiwan, Philippines, Vietnam and Indonesia, all of which have been building up textile production to meet demand from their own populations and to secure export earnings.

Over the past three years the company claims to have boosted export earnings in the area by 250 per cent., compared with a 40 per cent. increase in exports overall, and the latest move to set up a permanent base in Japan is intended to indicate the company's intention of developing sales further.

The company already has a marketing staff in Tokyo covering the northern part of the Far East region and a base in Hong Kong and its new company, Courtaulds Fibres (Far East) is intended to handle the business being generated.

Dr. Norman Wooding, a deputy chairman of Courtaulds, said yesterday that it had become apparent during the course of 1976 that with the devaluation of sterling and rising costs in competitor countries such as Japan, substantial scope existed for increasing sales in the area.

U.K. textile producers have traditionally regarded the area as too difficult to penetrate except at times of exceptional demand because of the transport distances involved and the dominance of the Japanese suppliers who control much of the textile industry of the area. However lower British costs, including more economic shipping arrangements, coupled with increases in the cost of Japanese production, now make the company's goods competitive, it is being claimed.

The company's main business in the Far East is in the supply of fibre, particularly its cellulosic fibres, viscose staple and acetate. A number of producers around the world have abandoned production of these fibres for environmental reasons leaving Courtaulds to supply a greater share of reduced world demand. The company is also exporting acrylic to the area and hopes to raise sales of synthetic fibre to Far Eastern producers.

Its Hong Kong base will also be seeking to expand the company's sales of fabric to garment makers in the Far East. Efforts will be made, Dr. Wooding said yesterday, to increase sales of some of the company's newer fabrics made by the warp and weft knitting and filament weaving routes.

Courtaulds will be supplying fabric and garment makers in the area with raw materials, some of which will almost certainly find itself back to Europe in the form of exports. The company said yesterday, however, that there was no question of its expanded operations in the Far East being used as the base for increasing Courtaulds' own imports of cloth or garments into Britain.

The latest developments come on top of other indications by Courtaulds of its increased interest in the Far East. The company has recently announced that its International Paints subsidiary will be co-operating technically and commercially with Nippon Paint of Japan and the company's packaging subsidiary, British Cellophane, has also stepped up its share of the market in the Far East.

Another U.K. textile company, Tootal, announced at the end of last year that it was to step up its activities in the Far East with the formation of a new company aimed at expanding trading links between the area and developed markets, in particular the U.S.

Record rail exports predicted

By Ian Hargreaves

THE U.K. railway industry is confidently predicting record export orders this year worth more than £50m., it emerged yesterday.

Mr. Robert Lawrence, vice-chairman of British Rail, told a Commons select committee that the combined efforts of the industry, recently co-ordinated in a rail export group, had met unprecedented success. The previous best export order total for the industry in a year is £9m. Mr. Lawrence said that he expected the industry to quadruple its present percentage share of the growing world market in the next few years.

It is understood that the orders are for a wide range of rail products, including British Rail wagons and signalling equipment made in the private sector. Announcement of a major deal is expected within the next fortnight.

Contributing to British Rail's part in the expansion of interest in railways in the developing world is Transmark, its consultancy service, which expects a revenue of £3.9m. this year, compared to £195,000 in 1973.

U.K. carpet exports up 51%

Financial Times Reporter

BRITAIN'S CARPET industry achieved record exports of more than £112m. in 1976—an increase of 51 per cent. on its 1975 total of £74m., the British Carpet Manufacturers Association reports.

The biggest market, the EEC, bought carpets to the value of £49m., compared with £30m. in 1975. West Germany became the leading European market for the first time, increasing its purchases from £6.4m. in 1975 to £11m., and overtaking two big traditional markets of the U.K. industry, Ireland and Denmark.

Australia remains the biggest market overall, purchasing carpets worth £13.4m. from Britain, an increase of £5.5m. over its 1975 figure. Exports to the Middle East at £10.9m. were more than double the previous year, and the U.S. with purchases worth £6.2m. also substantially increased its imports from the U.K.

	£m.	
U.K. Exports	1976	1975
EEC	49.2	30.6
EFTA	17.8	17.6
C'wealth (main mkts.)	20.1	13.0
Mideast (main mkts.)	10.9	4.4
Others	14.2	7.5
Total	112.2	74.1

CARICOM

Lean pickings for exporters

BY DAVID RENWICK IN TRINIDAD

ECONOMIC difficulties facing some of the major member territories of the Caribbean Community and Common Market (CARICOM) bloc will cause a sharp cutback in imports this year that is bound to affect British trade.

Jamaica and Guyana are hardest hit. Together they account for 2.8m. of a total CARICOM population of 5m. spread through 12 states, from Belize in Central America to the North to Guyana on the South American mainland.

In Jamaica's case, a marked drop in earnings because of sluggish demand for bauxite and alumina in North America, fewer tourist receipts as a result of the political violence that has plagued the island this year and a flight of capital from the socialist policies being pursued by Prime Minister Michael Manley's People's National Party (PNP) Government, sent foreign exchange reserves plummeting to an all-time low of minus $Ja.77m. (£55m.) in September.

The situation worsened after the PNP's overwhelming victory in the December 15 general election (the party won 47 of 60 seats in the House of Representatives) and the Government has now applied very rigid curbs on the use of foreign exchange, with the intention of ensuring that the import bill is kept down to $Jamaica600m. this year, some $Ja.240m. less than the ceiling set for 1976.

The total sum will be strictly rationed between imports of raw materials, consumer goods and capital goods. Earlier curbs on motor-cars (the import of which was stopped completely in February last year) and heavy equipment (computers, cranes, earth-moving machinery, steam rollers, etc) will remain in force.

The latest trade figures illustrate the acute nature of Jamaica's problem. In the first nine months of 1976, the trade gap widened to $Ja.237.5m. from $Ja.193.2m. in the comparable period in 1975. Though imports were reduced from $Ja.752.3m. in January-September, 1975, to $Ja.637.1m in 1976, exports fell by an even greater amount, from $Ja.599.6m. to $Ja 399.6m.

The Government has said it will eventually centralise all purchases for the public sector under a single State agency as an integral part of its attempt to keep imports under control.

Devaluation is not seen as a feasible solution, given the effect the consequent rise of prices would have on the broad mass of the Jamaican people, and Mr. Manley has consistently ruled it out so far.

Guyana has also suffered from an abrupt drop of export earnings in 1976 as a result of poor performance in its three key export sectors: bauxite (300,000 tons down), rice (70,000 tons loss) and sugar (a 38,457 ton shortfall on the target of 360,000 tons). Unexpectedly heavy rainfall was the cause in all three cases.

The Prime Minister, Mr. Forbes Burnham, has declared 1977 to be "the year of austerity" and ordered a $Guyana100m. (£27.7m.) cut in the import bill. The Central Bank will supervise a new system of import licensing in which each importer will be given a specific amount of foreign currency, broken down into amounts that can be spent on various types of goods.

Guyana Government policy has been to trade increasingly with eastern Europe, China, and Cuba and it is not unlikely that the Government may encourage importers to turn to cheaper sources of goods in the socialist countries to the detriment of traditional British imports.

The Government has also indicated its determination to become the sole importer of all goods in the near future. The State already controls the purchase of drugs, most foods and a number of consumer items.

Barbados, Belize and the smaller CARICOM member territories, such as Grenada, St. Lucia, St. Vincent, Dominica, Antigua, St. Kitts-Nevis and Montserrat, are also going to have to watch their foreign exchange positions very closely this year. The instability of the pound, to which the Eastern Caribbean dollar was tied until last year, caused a slump in earnings from bananas for the Windward Islands group (Grenada, St. Lucia, St. Vincent, Dominica) and the drop in the sugar price forced Barbados to go to the International Monetary Fund for a $4.06m. U.S. loan from the compensatory financing facility to help cover a balance of payments deficit of about $Barbados20.8m. ($10.4m.) in 1976.

The sole exception to the dismal CARICOM economic picture is Trinidad and Tobago, the only producer of oil in the region, which is benefiting from the high petroleum prices and will improve its position even further in the course of 1977 thanks to the two OPEC price increases set for January and July.

Provisional figures for 1976 suggest a trade surplus of the order of $TT422.6m. (£103m.). Net foreign reserves in August were at the record high of $TT2.140bn.

The Government alone will be spending $TT2.431bn. through its Budget this year, about $TT350m. of it on the capital programmes of the companies under its control (in the mixed Trinidad and Tobago economy the State holds the majority share in over 25 enterprises).

Surplus oil revenue has been set aside in 29 special funds for development expenditure on a wide range of projects, including energy based industries, schools, waterworks, highways, telephones, electricity, air transport, agriculture, public buildings, port expansion and so on.

Two British companies have already been awarded contracts under this expansion programme—Higgs and Hill, to build several sections of a six-lane highway between the capital Port of Spain and the airport and Kier International to construct a new container facility at the Port of Spain dock.

Middle East orders for SIR

BY PAUL BETTS

ROME, Feb. 15.

THE LARGEST private Italian chemical and engineering group, Societa Italiana Resine (SIR), which recently completed a major desalination plant in Qatar, announced to-day that it has been contracted by the Qatar Government to build a similar plant near Doha. SIR did not disclose the cash value of the deal.

The company also reported that it signed last week an agreement with the Libyan Government to build, at a total cost of L30bn. (about £20m.), five refrigeration units for storing fish at Benghazi, Tripoli, Homs, Zvara and Misurata.

These contracts are the result of SIR's recent move into the new market of the oil-producing countries of the Middle East. The Italian group has lately won major Arab contracts, including school projects in Saudi Arabia and the construction of army hospitals in Libya. The group has been particularly successful in selling prefabricated houses and desalination plants to Arab countries. The new desalination plant in Doha, the spokesman said, would include two waste-heat boilers with a production capacity of 22,500 cubic metres of water a day. SIR has also built a desalination unit in Bahrain.

● A consortium of West German, Italian and Swedish companies has been awarded a contract to build power sub-stations and transmission lines in the southern Iranian province of Khuzestan, the Iranian Ministry of Energy announced in Tehran.

The contract, worth Rials6,850m. (about $100m.) was signed on January 24, a spokesman for the consortium said.

The consortium members, Brown Bovary of West Germany, Sadelme of Italy and ASEA of Sweden, last year also won a $30m. contract from the Energy Ministry for building eight power distribution stations in the province.

The project is expected to be completed in 30 months.

Reuter

Iran in Nigerian project

BY RICHARD JOHNS

THE Iranian Management Engineering Group has won a $10m. sub-contract from Tsvetmetprom Export (TSMPE), the Soviet state construction company, for providing various services for pipeline projects in Nigeria.

IMEG, the Persian affiliate of the London-based International Management Engineering Group, is to be responsible for the surveying, engineering, procurement, training and commissioning involved in an oil product distribution system being carried out by the Russian concern under a $120m. turn-key contract. The work is being done for the Nigerian Ministry of Petroleum and will extend the Lagos complex to Ilorin and Warri.

The sub-contract is understood to have been signed in Moscow on February 11 by Mr. R. I. Kuprevich, vice-president of TSMPE, and Mr. Ian Bowler, president of IMEG. The expectation is that the major part of equipment purchased will be from Western suppliers.

The background to what might appear at first sight to be a curious deal uniting U.K. consultancy techniques and Soviet civil engineering is IMEG's responsibility for the design of the first Iranian gas trunkline to the Soviet Union. It is also one of the firms invited to extend its bid for IGAT II a second facility which is to export Persian gas to Russia but a project which is still awaited.

IMEG is a privately owned concern whose shareholders are listed as Mr. K. Zeinal-Zadi, an Iranian entrepreneur, Mr. Bowler, Mr. George Watt and a company registered in the Channel Islands called Strathaven.

The Nigerian contract is one of five awarded recently of which two have gone to the Soviet Union, two to the Italian company Montubi and one to Williams Brothers of the U.S.

New small ICL series launched

By Christopher Lorenz

ICL expects to win orders worth more than £100m. by 1980 for a new type of small computer system, with the vast majority in exports. This was revealed yesterday when the company launched its System Ten 220 Series, which is intended to help increase ICL's share of the small computer market by a substantial margin.

The product extends the line taken over from Singer five months ago, when ICL bought the international side of the U.S. company's business machines division. As well as giving ICL additional products, the acquisition doubled its small systems customer base, trebled its list of customers with intelligent terminals, and strengthened its position in a range of overseas markets, Mr. Peter Ellis, the ICL marketing director, said yesterday.

One of the marketing benefits was to enlarge the number of ICL dealerships across the world. These took it into some 15 new markets for the first time, including seven in Latin America, seven in the Far East (including Japan) and others in the Middle East. It now has 21 dealerships.

Reaffirming his faith in the former Singer product line, Mr. Ellis said System Ten computers alone had attracted £7.5m. worth of business in the last three months. Manufacture of the new 20 Series will begin in the Utica, New York, factory which ICL bought last year, but this work is currently being transferred to its U.K. factories.

This would improve the job security of ICL's U.K. employees, the company said, and, with more than 80 per cent. of production scheduled for export, would assist the British balance of trade.

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Polish order

Orders worth £3m. to supply equipment in Poland, South America and the U.K., have been obtained by the Manchester-based Francis Shaw, which produces machinery for the plastics, rubber and cable industries. Tyre-making plant valued at £1½m. will be installed this year at the Olstzyn tyre factory in Poland. Shaw will also supply equipment worth over £1m. to Dunlop, for use in their home and overseas factories, and export nearly £500,000 worth of plant to Argentina.

Toyota and Nissan production falls

TOKYO, Feb. 15.

TOYOTA MOTOR and Nissan Motor both reported higher vehicle output in January compared with a year ago but production fell from December levels. Exports followed the same pattern.

Toyota said output rose 15.4 per cent. to 177,726 from January, 1976 but declined 10.9 per cent. from December. Exports in January rose 31.1 per cent. to 94,729, but were down 7.5 per cent. from December.

Nissan said vehicle production in January rose 4.4 per cent. to 174,814 from a year ago, but declined 11.3 per cent. from December.

January exports rose 14.8 per cent. to 91,170 over a year ago, but fell 17.9 per cent. from the previous month, it said.

Nissan exports to Britain totalled 9,924 units, up sharply from December's 1,847 units, and up 38.8 per cent. from a year earlier.

Exports to Western Europe totalled 20,164 units in January, up 17.1 per cent. from December but down 0.5 per cent. from a year earlier.

Agencies

Chinese trade

Japan's two-way trade with China fell 20 per cent. in 1976 from a year earlier to $3bn, the first decline in eight years, the Japan External Trade Organisation (JETRO) said. Japan's trade in 1976 accounted for 22 to 23 per cent. of China's entire trade with foreign nations, compared with 26.7 per cent. in 1975

Lloyds Bank in Dubai

Lloyds Bank International has opened a full banking branch in Dubai. The new branch is able to provide a complete range of banking services and will be responsible for the development of the Lloyds Bank Group's international activities in the United Arab Emirates.

U.S. spirit duties

The U.S. Treasury Department said it will no longer collect countervailing duties on spirits of any kind imported from Britain. The order on spirits from Britain has been in effect since 1814 although it has been amended several times as export bounties have been eliminated. The Treasury said it has now verified that the British Government has eliminated all remaining subsidies on the export of spirits to the U.S.

Libyan award

Libya's Posts and Telecommunications Corporation has awarded Bliss of Britain an 878,052 dinar (£1.1m.) contract for the expansion of telex exchanges in Tripoli and Benghazi. The contract involves increasing telex lines and according to a Posts and Telecommunications Corporation spokesman in Tripoli the expansion will take place within 22 months.

Manila talks

A top level group from the City of London leaves the U.K. this week for a three-day Anglo-Philippine financial conference starting next Monday in Manila. President Marcos will open the conference, which will cover a range of subjects including joint ventures, the development of a capital market, insurance and re-insurance, foreign exchange, gold and Eurodollars, soft commodities, banking services, and construction and engineering consultancy.

Boeing order

Boeing said that Singapore Airlines has ordered three Boeing 727s, for delivery in early 1978. The order represents the exercise of options announced in mid-1976 when Singapore Airlines placed its first order for three 727s.

Cement for Venezuela

Venezuela will be required to import some 44m. sacks of cement this year in order to cover the deficit in national production, according to the Venezuelan Cement Producers' Association. This would mean a sizeable increase over last year's imports, estimated to be at around 26m. sacks.

Hong Kong contract

Hawker Siddeley Water Engineering has won a £462,500 contract with the public works department in Hong Kong to provide water engineering equipment for development of Shatin New Town in the New Territories. The contractor is represented in Hong Kong by Hutchison-Boag Engineering

Franco Italian discussions

By Paul Betts

ROME, Feb. 15.

THE FRENCH Foreign Trade Minister, M. Andre Rossi, is scheduled to arrive here on Thursday for talks with his Italian counterpart, Sig. Rinaldo Ossola. The visit is seen here as a continuation of the dialogue between the two Ministers started last month when Sig. Ossola went to Paris.

The talks are expected to centre on the problems of stabilising bilateral trade relations, in particular concerning French objections to cheap Italian exports of wine and shoes.

According to recent statistics Italy recorded a trade deficit with France of the order of L206.5bn. (about £68.8m.) in the first 11 months of last year. Although imports from France increased by 48 per cent. Italian exports rose by nearly 60 per cent.

Meanwhile, figures released here to-day show that Italy's food deficit rose to a record L3,531bn. (about £1.2bn.) last year, an increase of L804bn. (about £268m.) on the previous year. Italys' meat import bill of L1,814bn. (about £1.2bn.) alone represented a rise of 74 per cent. last year

Restrictive pay curbs cannot continue says CBI president

BY JAMES McDONALD

RESTRAINT of the present ·ictive kind could not con- e much longer, Lord Watkin- president of the Confedera- of British Industry, said in lon yesterday.

hile this restraint continued, ngerous dam was being built h one day would burst "with strous consequences," he told ritish Institute of Manage- t conference on 'A Pay ategy for Industrial Recovery.' he Chancellor needed to pro- incentives if he wanted the on to "get up and go." Many agement salaries were lag- up to 25 per cent. behind ent increases in costs and es.

Free collective bargaining as sed to be known is no longer , nor collective, nor a gain in present circum- ces. So we shall have to better than that."

many consultations with members, it had become that they wanted an effec- Year Three of the pay policy everyone working hard to ieve a longer-term flexible eme which lay between the remes of restrictive constraint free collective bargaining.

Perhaps at this critical point negotiations on Year Three is not the time to put such scheme forward. But we cer- ly intend to do so in due urse."

from runaway inflation coupled with the highest taxation rates in Europe, lies in two pay brackets."

"One, I would judge, is roughly between the £5,000 and £12,000 bracket. The other, just as cute, is at the bottom-end of the wage scale in the so-called poverty trap area.

"There is also, in my judgment, a third which lies just on each side of the £4,000-£5,000 scale affecting craftsmen, foremen and management."

Difficult

It might be difficult for the Government to do enough for these people in the middle, "but our Budget representations to be published soon will indicate priorities."

Sir Derek Ezra, chairman of the British Institute of Management, and the National Coal Board, told the conference: "Confidence in the underlying economic situation is picking up.

"The recent trade figures showed a great improvement, the International Monetary Fund loan and the cover arrangements for sterling have led to a revival in the pound's fortunes, and surveys of investment prospects in the light of lower interest rates are showing improved potential for the remainder of the year.

"Our concern is to bring about the conditions in which the industrial strategy will succeed."

Sir Derek listed: a restoration of incentives; relaxation of the squeeze on differentials, and easing of the excessive burden of income tax.

"These, together with the reassurance to managers that their position as responsible professional people who can make a vital contribution to the formulation of policy, will ensure that they undertake their major task with every expectation of success."

relevant

Present prices arrangements re outmoded and now largely relevant. Although the CBI ked forward to the develop- nt of the discussions now ng on with the appropriate ustries, it did not want "some at new bureaucracy."

t would be reasonable to pro- e a Secretary of State able to advice on whether companies organisations were charging essive prices.

n taxation, he would like to rect one present absurdity. irect taxation is not just a tter which concerns only the echelons of management. There is considerable weight evidence to show that the atest social problem, arising

Mr. Anthony Frodsham, director-general of the Engineering Employers' Federation, said that he was no great believer in the central direction of pay policies. They existed because "we cannot trust the unions and the unions cannot trust or control their members to bargain with restraint and responsibility."

Poorest 'hit most by inflation'

BY MICHAEL BLANDEN

IE POOREST households have fered more than the rest of population from the effects inflation, according to the tional Consumer Council.

he effect of inflation had been uced higher up the income le, the council said yesterday. Until the 1970s the worst-hit aseholds seemed to be pen- ners reliant on State benefits, latterly poor households with ldren have been hit hardest."

The evidence indicated that d and other subsidies in 4 reduced the inflation gap tween poor and rich house- lds, but the gap had since dened. "Since 1970 the differ- ce in inflation rates has be- me increasingly marked."

The council was giving evi- nce to the Royal Commission the Distribution of Income d Wealth, headed by Lord iamond, which is examining comes at the lower levels.

The council said poor people d a double disadvantage. They re worse off in terms of their incomes and it also cost them more to buy the same goods as better-off households. Their cost of living was rising more rapidly.

This was partly a reflection of the relatively restricted access of the poorer groups to cheaper goods because of their inability to buy in bulk and their reliance on local shops.

It was no longer appropriate to use a single measure of inflation—the retail prices index—for all levels of income. There should be, at least on a trial basis, different price deflators for each decile of the income distribution, in order to see if real income inequalities were increasing.

The council said that it would support the construction of a special price index for poor families with three or more children, to be published on a quarterly basis with the special pensioner price indices.

See Lombard Page 2

Varley likely to set up engineering inquiry

BY KENNETH GOODING, INDUSTRIAL CORRESPONDENT

GOVERNMENT committee of quiry into the engineering ofession seems almost certain be set up by Mr. Eric Varley, dustry Secretary, within the xt few weeks.

Pressure for an inquiry has en building up again recently d two of the most powerful of e professional engineering ganisations have written to Mr. rley urging him to start one. The Institution of Mechanical gineers and the Institution of ectrical Engineers, which tween them have about 170,000 mbers and account for about per cent. of the profession, ve lined up behind those call- g for an inquiry.

The move originated with the .000-strong Electrical Power gineers Association in autumn 75 and a proposal urging vernment action put by the sociation was unanimously proved at the TUC meeting in ptember.

Mr. Arthur Palmer, Labour MP r Bristol North East, raised the bject again in a written ques- n yesterday, and Mr. Leslie ickfield, Under-Secretary, epartment of Industry, said at Mr. Varley was "urgently nsidering all aspects of this atter" with the Secretaries of State for Education and Science, and Employment.

Mr. John Lyons, general secretary of the association, said last night: "I would have thought that the Government will find it difficult not to agree to an inquiry now."

An inquiry would, he believed, help mobilise public opinion and change attitudes towards the engineering profession and manufacturing industry in general.

Laker awaits U.S. approval

MR. FREDDIE LAKER, chairman of Laker Airways, will tell officials of the Department of Trade to-day that he wants to start the Skytrain cut-price Atlantic service as soon as he gets U.S. approval for it at a single London-New York fare of £59.

Mr. Laker said because of past delays in getting Skytrain airborne he was anxious to press the advantage to be gained from the Government's about-turn on the plan, announced by Mr. Edmund Dell, Secretary for Trade, on Monday.

London insurers expect heavy Antwerp claims

EAVY INSURANCE claims are pected in the London market er the fire at Antwerp Docks hich destroyed warehouses and rgo.

Marine insurers at Lloyd's pect to face a £6m. loss over ood pulp and other products. he goods were insured in the arine market as they were garded as cargo in transit.

Estimates reaching Lloyd's yesterday put the cost of the blaze as more than £20m., which would make it one of the most expensive fires in Europe for some time.

It is assumed that much of the buildings and other fixed property were insured in the Belgian market, but there may be heavy reinsurances cover in London.

Surveyors from Lloyd's are examining the damage.

An artist's impression of the Hawker Siddeley Nimrod.

Unions increase efforts to win Nimrod decision

BY MICHAEL DONNE, AEROSPACE CORRESPONDENT

THE TRADES unions are increasing their efforts to win a change of mind by the Government in favour of buying the Hawker Siddeley Nimrod a rcraft instead of the U.S. Boeing E-3A for Airborne Early Warning duties in Europe.

A decision is due to be taken by NATO Ministers at a meeting in Brussels next week on whether to buy the Boeing jet for AEW—in which radars mounted on aircraft flying at great heights could look down on and detect enemy aircraft and missiles seeking to penetrate the ground-based defensive radar networks.

So far, the U.K. Government has expressed a preference for the Boeing E-3A, called the Airborne Warning and Control System (AWACS), and has tended to regard the Hawker Siddeley Nimrod solely as a possible alternative to meet the U.K.'s own needs in the event of Europe rejecting the Boeing jet.

Union anger at this attitude is rising. A statement by the joint unions representing workers at Hawker's Woodford, Manchester factory where Nimrods are built for anti-submarine duties, said yesterday that negotiations were taking place between Government and unions on the next phase of the social contract.

"One way for the Government to show confidence in British industry and indicate an attempt to improve the employment situation would be to support the Nimrod project, thereby giving the working population some degree of confidence in supporting Government policies."

For some years, the public had been urged to "Buy British"—yet, "when it comes to an item of significant cost, the Government is prepared to ignore this advice."

To buy the Nimrod would provide more employment—up to 7,000 jobs—than buying the Boeing jet (little more than 500 jobs).

"If the Nimrod was stopped and AWACS finally purchased, the results could be catastrophic, not only from the employment aspect, but also the U.K. would drop out of advanced electronics and give it to the U.S. on a plate."

The U.S. had told NATO that the cost of the Boeing jet would be $2.4bn. (£1.45bn) for 27 aircraft—£53.7m. each. "It is known that AWACS is more than twice as expensive as Nimrod."

Supermarkets dominate sales of food to freezer owners

BY ELINOR GOODMAN, CONSUMER AFFAIRS CORRESPONDENT

SUPERMARKETS have managed to assert their dominance of sales of frozen food to the rapidly growing number of home freezer owners after a period in which the big multiple retailers lost out to the small specialist freezer shops.

According to a survey published yesterday by Birds Eye, the Unilever frozen food subsidiary, supermarkets now have a larger share of sales to home freezer shops.

The freezer centres increased their volume last year, but the supermarkets made bigger gains.

The survey shows freezer ownership has more than doubled in the last three years. About 1.2m. families bought freezers last year.

Almost one in three families has a freezer and nearly 50 per cent. of all the frozen food sold in this country goes to freezer owners.

The survey predicts that by 1980 half Britain's families will own freezers.

The Birds Eye figures show that in 1975 freezer centres took 44 per cent. of sales to home freezer owners and grocery freezer departments only 39 per cent. Last year the supermarkets took 48 per cent. of sales. The freezer centre share fell to 36 per cent. The share taken by other outlets dropped from 17 per cent. in 1975 to 16 per cent. last year.

The report shows that the Co-op is still the leader among supermarkets in the development of freezer centres. It has 261 freezer centres, 136 of which were set up in existing stores.

Concern for waterways

BY JAMES McDONALD

THE BRITISH Waterways Board is concerned that under the devolution proposals in the Scotland and Wales Bill the integrated system which it now controls will become "fragmented."

In a memorandum published yesterday the Board urges that Clause 84 in the Bill, dealing with the British Waterways Board, should be deleted. The clause would transfer financial responsibility for the waterways in Scotland and Wales to the Scottish Executive and the Welsh Assembly.

The Board says that at present it deploys its limited finances according to operational needs rather than geographical location. It is concerned about proposals in the Bill which provide that funds needed for the maintenance of the waterways and for capital investment will be obtained from three different sources "with the probability that the principles applied in the location of such funds will not be consistent."

First fair trading order made against heating man

By Elinor Goodman, Consumer Affairs Correspondent

A CENTRAL HEATING supplier and installer made legal history yesterday when he was the recipient of the first order sought by the Director-General of Fair Trading against a trader alleged to have persistently broken the law.

Breach of such an order would be held as contempt of court and would be punishable by an unlimited fine or imprisonment.

Until the Fair Trading Act was passed in 1973, some traders could have found it worthwhile to break the law aimed at protecting the consumer even if they were taken to court.

When an offender had been found guilty and paid the fine, there was nothing to stop him taking up business somewhere else and repeating the offence.

The Fair Trading Act, however, gave the Director-General powers to obtain a written assurance from a trader not to repeat the trading practices which had resulted in the offence.

If this assurance is broken, the Director-General can then seek a court order prohibiting the trader from repeating the offence.

Breach of this order would be contempt of court and, as such, subject to tougher penalties than individual breaches of safety regulations or the Trade Descriptions Act.

Regulations

In April of last year, Mr. Jergen Krupa, a Cardiff gas central heating installer and supplier, who had already been found guilty twice of breaching gas regulations, gave the Director-General a written assurance.

This was to refrain from installing gas-fired central heating in a manner not in accordance with the terms of his contracts with customers, and from committing offences under the Gas Safety Regulations, in particular by installing gas pipes which leaked.

In the Cardiff County Court yesterday, it was alleged, on the Director-General's behalf, that Mr. Krupa had continued to break the terms of contract and had again been convicted under the Gas Safety Regulations after giving his written assurance.

The court order means that Mr. Krupa must refrain from his previous conduct. In other words, he must not break the terms of contracts by failing to instal equipment in a proper way. Nor must he instal any more leaking gas pipes.

The Office of Fair Trading has received 36 assurances from other traders who have undertaken not to repeat their previous misconduct.

Accounting change gives cement group extra £5m.

BY MICHAEL LAFFERTY

A CHANGE in accounting practice has increased the distributable profits of the Bath and Portland Cement Group for the year to October 31, by more than £5m. to more than £10m.

Similar action by Westland Aircraft in its 1976 accounts, published last month, led to an increase in after-tax profits from more than £3m. to more than £8m.

The new approach by Bath and Portland, which has the approval of auditors Peat Marwick Mitchell, came after the decision of the Accounting Standards Committee to suspend its standard on deferred taxation late last year following widespread protest from industry.

The opponents of deferred tax said that it introduced into the accounts theoretical balances which would never in reality be paid over to the Government.

This arises because in tax calculations businesses can write off plant and machinery completely in the year of purchase, whereas they probably provide depreciation only at much lower rates. In addition, stock relief provides generous benefits increases in stock balances between one year and another.

The notion behind deferred tax accounting is that some or all of these reliefs might one day be "clawed back," as for example in cases where companies are not able to maintain an increased rate of capital investment.

A less conservative approach to the problem was proposed in the Morpeth current cost accounting system, whereby companies would have to provide deferred tax only in those cases where they actually expected a liability to materialise. The Bath and Portland Cement Group and Westland Aircraft have followed Morpeth.

If Bath and Portland had followed a similar approach to last year, its after-tax profits for 1976 would have been £1m. less than the £2.6m. now published.

Distributable profits would have been just over £5m., compared with the £10m.-plus figure now reported, because of a further write-back of over £4m. of deferred tax provided in previous years.

Westland Aircraft did not write-back deferred tax provided in previous years. As a result a liability of £8.5m. appears in the accounts "although it is unlikely that any substantial part thereof will ever be required."

World ship orders at eight-year low

BY KEVIN DONE, INDUSTRIAL STAFF

ORDERS held by British shipyards fell more than 1.25m. tons in the last three months of last year to their lowest point for several years. The world order book is at its lowest for nearly eight years.

The U.K., where 10,000 redundancies are threatened in the shipbuilding industry by the end of the year, is lying seventh in the league of leading shipbuilding countries with an order book of 2.95m. tons gross at the beginning of the year.

Japan heads the league. It claimed nearly 33 per cent. of all orders at the end of the year with 18.2m. tons gross—a fall of 2.1m. tons on the previous quarter. Next come the U.S., Sweden, Spain, Brazil and France.

Ironically Britain last year launched more tonnage—1.347m. tons—than in any of the previous nine years. The work completed, 1.486m. tons, was also a record.

The big fall in U.K. order books, by far the greatest percentage fall of all major shipbuilding countries, was mainly due to the cancellation of tanker orders which had previously been held in abeyance.

According to Lloyds Register of Shipbuilding Returns for the quarter ended December 31, the drop in Japanese orders is primarily due to an excess of deliveries over the new order intake during the quarter.

The U.K. has 1.9m. tons gross under construction, a fall of 253,000 tons from the previous quarter.

Coal 'has part in future'

COAL, nuclear power and conservation must contribute most to future energy needs, Sir Jack Rampton, Permanent Under Secretary at the Department of Energy, told the Fuel Luncheon Club in London yesterday.

The so-called renewable sources of energy—solar, wind power, wave power, tidal power and geothermal energy—would not make a decisive contribution this century, at least in the UK, he said.

The Technical Page

EDITED BY ARTHUR BENNETT AND TED SCHOETERS

● OFFICE EQUIPMENT

Word processors to boom

WEST EUROPE'S word-processing market will treble and reach a total of £2,530m. over the next decade, according to a study by Frost & Sullivan.

One major sector, text-processing equipment and services, will grow five-fold. Worth £55m. last year, it will increase to £335m. by 1985 and have a total value of £1,726m. during the ten years. Germany, with a 40 per cent. share, will be the dominant market of the 17 countries covered by the study. Britain and France will each hold around 16 per cent. Holland, Sweden and Switzerland will have 4 per cent. each.

A second major sector of Europe's word-processing market, dictating equipment, will increase at an annual average of 7 per cent. Valued at £61m. last year, it will reach £102m. by 1985 and total £792m. over the next decade. Only Britain and Germany have significant penetration. Holland, Sweden and Switzerland are moderate users. Dictating equipment is not popular in France and Italy or in several smaller European countries.

Offices are the last significant areas of business relatively untouched by automation, asserts the 400-page study, "Word Processing in Europe."

Paperwork has been growing and has led to a larger proportion of the work force being employed in offices. A fundamental alteration of ingrained work patterns is required, the study asserts.

Mechanical text editors are responsible at present for virtually the entire European market. Sales will climb until the early 1980s but, under the impact of display-based equipment, will begin to fall slowly and total £891m. in the next ten years.

Stand-alone display-text processors are still novel in Europe. Sales growth will be rapid and will reach £529m. in the decade to 1985.

Dedicated text-processing shared-logic systems are also just being introduced by specialist suppliers or as adaptations to existing mini-computer or small business computer systems. Because of high initial cost and the magnitude of office structural changes necessary, shared-logic systems at first will be acceptable only to large and well-organised companies. Sales of £144m. are forecast for the next ten years.

Time-shared text-processing services from bureaux will not become a big market in Europe, the study asserts. Total revenues are unlikely to exceed £20m. during the next decade.

Data-processing computers will provide the means for text-processing concerned with complex filing and retrieval systems. Many suppliers of small business systems will also make concurrent data- and text-processing possible on their equipment. Additional spending relative to text-processing will amount to £144m. over the next ten years.

More from BAS Industrial Consultants, Mile Ash, Radlett, Herts. Radlett 6376.

Duplicator makes light of the work

PORTABLE, a stencil duplicator for in-house or departmental use, is to be launched by Roneo Vickers on March 1.

The retail industry is expected to be one prime market, for production on the premises of price lists, customer mailings, product labels, etc.

The Roneo 270 will accept small documents from postcards up to a paper size of 8½ inches x 14 inches (21.6cm. x 35.6cm.). Operation is through a single lever control inking is automatic and speed is variable up to about 80 copies a minute and weight is only 38lbs.

The machine is a major advance on the 250 stencil duplicator which Roneo has sold for a quarter of a century.

Roneo has signed an agreement with Office and Electronic Machines who, through its subsidiary Imperial Business Equipment and its agents, will jointly market with Roneo's sales force both this new machine and the 475 middle range duplicator launched 12 months ago. The company says the OEM agreement will effectively increase by some 30 per cent. the selling strength for these stencil duplicators in the small to medium sized sector of the U.K. market.

Roneo Vickers, Roneo House, Lansdowne Road, Croydon CR9 2HA. 01-686 4333.

Screen aid for typing accuracy

SINGLE-STATION word processing equipment by Wordplex has an intelligent display, dual floppy disc memory and high speed character printer.

Suitable for all general-purpose office applications, it is primarily intended to provide a low-cost entry point to a compatible Wordplex multi-station system for large organisations wanting to build up experience of computer and screen typing.

Significant increases in typing productivity have been demonstrated in trials of Wordplex 1, and an important factor is the time saved in waiting for "play out," since with this unit the typist can begin at once to create the next document on the screen while the first is being printed.

The screen is used to display the text as the typist creates, edits and assembles it prior to printing. It is capable of displaying a page as wide or as long as is needed by acting as a "window" on the page of information held in the memory of the screen. This window is 80 characters wide and 24 lines long. Page size is 128 characters by 83 lines.

From the keyboard the typist can cause the window to pan right or left to see the remainder of an extra wide page; or scroll up or down over long pages. The bottom two lines are reserved for visual indications of the positions of margins and tabs, the current line number, the page number, the current column positions as well as other helpful information.

Wordplex 1 has an electronic keyboard which can match the feel and layout of keyboards on standard electric typewriters.

Wordplex, 27 Fitzroy Street, London W1P 5AF. 01-637 5065.

● TRANSPORT

Three-axle truck from Fodens

A HEAVY-DUTY three-axle truck, grossing 36 tonnes, has been developed by Fodens, Elworth Works, Sandbach, Cheshire CW11 9HZ (09367 3244). Intended for on or off road operation, the truck is also available as the tractor unit for a road train, when it can haul 65 tonnes.

The first production models of this six-wheeler, leaving the works this week, are part of export orders from the Middle East worth £3.4m.

Power is from a 290 hp turbo-charged 14-litre Cummins diesel engine, driving through a 17-inch clutch and eight-speed gearbox. The two 16-ton worm-drive rear axles have secondary gearing in the hubs, and the differentials are lockable. Top speed is 55 mph and the truck can climb hills of 1 in 4.

A fourspring load-equalised suspension is used for the tandem rear bogie, spreading the load through six points over a long span of the chassis. Turning circle is 24 metres.

The cab, which hinges forward for engine maintenance, has been designed for driver comfort, and includes independent springing, tinted glass and forced ventilation.

● HANDLING

Accurate powder feed

A VOLUMETRIC feeder providing accurate feed rates for powders with widely differing flow characteristics is being marketed by Russell Finex, Adam Street, London WC2 (01-836 0055).

Called the Funken Auto Feeder, it is claimed that the machine can maintain accuracy of ± 1 per cent., with outputs ranging from 0.5 litre/hr up to 50 cu. metres/hr.

The feeder has an upper hopper from which the powder is conveyed to a lower vessel by impeller, via three pressure regulating apertures in a level-control disc. This disc keeps a constant pressure on the powder. Another impeller in the lower vessel propels the powder through a circular orifice to a measuring disc from which it is discharged through a gate.

Output speed is regulated by altering the opening of the gate and the speed of the lower disc. It is claimed that cavitation and bridging is eliminated.

Hygroscopic materials which tend to agglomerate, and difficult substances such as fluidised cement and semi-solid pigments can be handled.

Submersible pump units

RESISTANT TO aggressive liquids, abrasive particles in suspension, and high temperatures, a submersible pump has been developed by ITT Flygt Pumps, Colwick, Nottingham NG4 2AN (0602 241321).

The pumps are of stainless steel and driven by 3hp electric motors. They are available in either fixed or transportable versions.

Liquids at temperatures up to 40 deg. C can be pumped, and with external cooling of the housing jacket the pumps will deal with liquids at temperatures up to 70 deg. C.

● INSTRUMENTS

Close check on oil flow

A COMPANY which started in 1971 in the manufacture of simple electronic instrumentation and has recently locked in to the important business of custody transfer of oil products, Spectra Tek U.K., has won an important £90,000 North Sea order.

Supplied to Daniels Industries (which is working for Foster Wheeler and BP), the equipment will be used for fiscal metering stations at the Sullom Voe terminal where oil comes in from the Brent and Ninian pipelines first into tanks and subsequently into tankers.

Main point about the equipment is that it accurately accounts for variables that affect the financial value such as temperature, pressure, density and gives a result to 0.1 per cent. rather than the 1.0 per cent. common in the past.

Gross pulses from meters are electronically scaled into engineering units after the accuracy of the meters has been established by passing known volumes through them. The effect of temperature changes on the oil is taken into account on a regular basis and compensated volumes are displayed for each bank of meters.

At Sullom Voe the microprocessors will pass their information over data highways to centralised site control computers when requested and will be able to receive and act on instructions altering the meter scaling factors as subsequent proof runs establish changes in the meter performance.

According to the company the one order accuracy improvement achieved can mean that on a daily product flow worth £1m. the equipment could pay for itself in a day or two.

An interesting side benefit is that the shore measurement at Sullom Voe can be compared with flow results from instruments on the offshore production platforms so that the integrity of the submerged pipeline can be monitored.

Spectra-Tek says that it has quoted for £½m. of business since it launched the equipment in October 1976, enough to keep its factory active for five years. More from Outgang Lane, Pickering, North Yorkshire, YO18 7JA (0751 72941).

Cable check analyses

SIEMENS has developed an automatic telecommunications cable checker K1076 which is controlled by a computer and is therefore faster and more economical than conventional methods.

Having checked for the correct connection of the test sample the instrument will then look for short or open, crossed or ground contacting conductors and then go on to measure loop and other resistive parameters, effective single wire and coupling capacitance, shunt conductance, and dissipation factor.

Suitably equipped, the system will also register crosstalk couplings. Measurement frequencies extend from 128Hz to 1000 Hz.

The tester is programmed in Basic and has a storage capacity of 28 kilobytes and a word length of 16 bits. The measured data is evaluated according to the program and the results produced on a page printer. Each program once written can be stored on magnetic tape. More from Siemens AG, Postfach 324, D-8520 Erlangen 2, West Germany.

● DATA PROCESSING

ICL's new baby will grow fast

WHEN SINGER Corporation decided to cut its losses on its involvement in advanced electronics some two years ago, its successful international operation was pushing the development of new equipment specifically for the smaller user and having software written for it by Plymouth in Britain and elsewhere.

Since then, and following the acquisition of most of the Singer data processing operation by International Computers, the question has been frequently asked what had happened to the new machine which was intended to be a follow-on from the Singer System Ten 110, some 4,000 of which are installed around the world.

ICL yesterday provided the answer to the inquiries with the world launch of the Ten 220, manufacture of which is being transferred to Letchworth and Kidsgrove (U.K.) from Utica in the U.S. at this moment.

At £18,500 for a basic installation of processor, disc memory, printer and communications display/keyboard, it starts very low down the scale indeed and can be offered to many businesses still using accounting machines or visible record computer as a completely up to date and fast method of handling manufacturing, retailing and distribution work without the need for going deep into technicalities.

ICL/Singer have learned their lesson in that all operating routines and peripheral units for the machines of the earlier series will run with 220. The latter has a larger and faster central memory, faster discs and a faster central processor, for which a new system software has been written.

The equipment is being offered to people who want to do transaction processing and gain immediate access to company data stored on disc. It is suitable for management situations where there is a need for hands-on working.

It is possible to use 220 series machines as satellites to large central processors communicating with the latter over telephone lines. These need not be ICL machines and, in fact, of the £7½m.-worth of System 10 computers sold by ICL worldwide in the past three months, £1m. came from IBM users, according to Mr. Peter Ellis, director, worldwide marketing group.

The Utica plant, which is losing the 220, will continue to make the 1500 series of intelligent terminals and the point-of-sale terminals, which ICL has taken over with Series 10. First delivery to a customer will take place from Utica in April but manufacture at the two U.K. sites will be built up over the year and with some 80 per cent. of 220 units expected to go overseas, the machine will contribute to the U.K.'s balance of payments in computers which is still too far in the red for comfort.

The 220 is about 35 per cent. less expensive than the smallest machine in ICL's current 2900 series and it should prove a sharp competitor to IBM's System 32, as well as the small business machines which have recently been put on to the market by NCR, Univac, Burroughs and Honeywell.

Small business systems represent one of the fastest growing sectors of the market and it is hardly surprising—with the experience of the 110—that ICL expects a £100m. sales of 220 Series alone up to 1980. Total European markets for small business machines in the next 10 years could reach as much as £12bn. with half a million new users, so the ICL figure is not fanciful.

● MAINTENANCE

Bags of air plug pipes

ONE WAY of sealing off a pipe which has a leak in it is to stuff it with a bag which is then inflated.

Bags designed for this job are now being marketed in the U.K. by Avander Industrial Equipment, 26, Jesmond Road, Newcastle-upon-Tyne. They are manufactured in Germany from neoprene reinforced with woven nylon and are fitted with quick release couplings.

There are three standard sizes with deflated diameters varying from 3½ inches to about 12 inches and expanded diameters from 8 to 20 inches. A foot pump can be used to blow them up.

● CONFERENCE

Exploiting technology to the full

REMARKABLE improvements in industrial performance can result from the intelligent application of already existing technology.

This is the theme of the first technology transfer conference to be mounted by the Committee of Directors of Research Associations. It will be held at the Hyde Park Hotel, London, on May 9 and 10, and will have a strong practical bias.

The CDRA represents people who live by technology transfer—the Industrial Research Associations—and it is calling the conference Transtec '77.

Emphasis will be placed on examples of successful technology transfer involving industry and Research Associations and a policy background will be provided by speakers from U.K. Government and from the EEC.

The main aim will be to give representatives from industry, from government and from the Research Associations the opportunity to exchange up-to-date ideas and experience and to give full support to the declared Government policy of encouragement for technology transfer in all its forms.

Information on the meeting from CDRA at 47, Victoria Street, London SW1H 0EQ. (01-222 0589.)

● PROCESSING

Mixer will move heavy doughs

VERTICAL spindle 550 kilo capacity mixer has been introduced by Baker Perkins, of Peterborough, for processing hard and soft biscuit doughs, with mix times controlled sequentially by pushbutton or automatically by pre-set timer.

Cycle times, which allow for loading the tub and discharge of a finished mix, will depend on the type of dough being processed. The time span ranges from 15 to 45 minutes, the longer period being for exceptionally heavy doughs.

Simplicity of the drive and controls aids maintenance as well as operation. The machine's twin blades achieve swift and complete dispersion of ingredients and their high circulating action ensures gentle mixing of fruited and all other special doughs.

Baker Perkins on Peterborough (0733) 262 000.

/W plans o move British entre

/ STUART ALEXANDER

KSWAGEN is to go ahead plans to build a central house and headquarters at n Keynes. This will bring t the closure of five regional warehouses and the head- ters at Purley, Surrey.

e project was first put for- in 1973, when the cost d have been an estimated . Yesterday, the company that the cost of the invest- had risen to £7.5m.

ork is expected to begin on the 23-acre site, with the building ready for occupa- by the summer of next year the whole project completed be following winter.

is hoped that the Depart- of the Environment will t an office development it in the next few days.

ntralisation was shelved ng the fuel crisis and the p in car sales, but the com- said yesterday that its isation now would cut costs give a better service to omers.

aining

he five existing warehouses at Ramsgate, Doncaster, wbridge (Wilts), Edenbridge nt), and Whitburn (Scot- d). They employ about 450 ple. The distribution centre Ramsgate employing 250 ple. will not be affected. The e number are employed at ley.

bout 500 will be employed at new complex, to include a ning school designed to cope 5,000 people a year from kshop mechanics to dealer- proprietors.

olkswagen is holding pre- nary talks with the General Municipal Workers Union provisions for redundancies has promised that under the tage to be worked out there be "above normal redun- ncy payments" for those who out.

Diplomats give warning on service cuts

BY DAVID CHURCHILL, LABOUR STAFF

A FIRM warning that senior diplomats in Britain's embassies could take "direct action short of a strike" if the expected cuts in the Diplomatic Service were made came last night from the diplomats' trade union, the Society of Civil and Public Civil Servants.

The warning was based on a private survey of about 1,300 members of the Diplomatic Service, mainly executive grades up to consul-general level, the survey was made to gauge reaction to the review of the service being carried out by the Central Policy Review Staff, generally known as the Think Tank, headed by Sir Kenneth Berrill. The review is due to be published in April.

An overwhelming majority of the diplomats said that they would consider such action as withdrawing their co-operation, refusing to work overtime and covering for colleagues on leave and other forms of protest if the Think Tank recommendations were not carried out in a "generally acceptable way" or if individual diplomats suffered from the cuts.

The depth of feeling among the diplomats surprised union leaders.

Mr. Eric Brent, the union's national officer for the Diplomatic Service, said last night that it reflected changing opinions among his members over the past few months as the implications of the overall Civil Service cuts have become apparent.

"The survey shows we will get the full backing of our members overseas in contesting any recommendation from the review which are adverse to their interests."

The diplomats, most of whom are based overseas, also gave a clear warning to the Foreign Office and the Think Tank that they were not interested in leaving the Diplomatic Service to join a separate organisation for export promotion work.

There have been widespread suggestions that the Think Tank report will hive off the export promotion work to another Government department, such as Trade, to help to reduce Diplomatic Service costs from the 1975 total of £86.7m.

Most diplomats said they would prefer to stay in the diplomatic service even if export promotion work was taken away. But they were "reluctantly" prepared to accept transfers to the home Civil Service, as an alternative to redundancy, although one in four would opt for early retirement.

Mesa Petroleum left out of new offshore round

BY RAY DAFTER, ENERGY CORRESPONDENT

MESA PETROLEUM, discoverer of one of the most attractive oil fields in the North Sea, has been excluded from the latest round of offshore licences in circumstances which are causing growing concern in sectors of the oil industry.

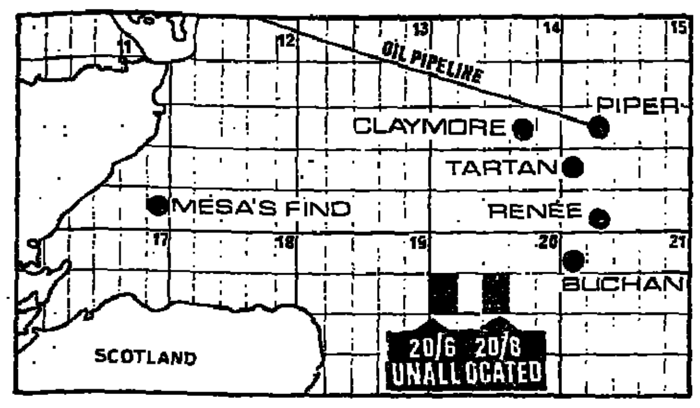
Mesa was one of several companies that applied for new licences in Quadrant 20 of the Moray Firth. What has upset Mesa and the other applicants is that two of the concessions offered in the quadrant have not been allocated.

The move is thought to be linked with the indecision still surrounding the applications of Amoco and the British Gas Corporation. Amoco was left out of the fifth round allocations because of its reticence to agree to State participation on Department of Energy terms.

However, the Department has not ruled out the possibility that an agreement could be reached with Amoco soon, which would allow for the belated allocation of licences.

As a result, it appears that an allocation decision has been deferred on blocks in which Amoco might be interested, including two in the English Channel. The Mesa experience indicates that they might also include at least one in Quadrant 20.

It was thought in the industry that the Quadrant 20 blocks would be among those most eagerly sought. Those left unallocated—20/6 and 20/8—lie only 40 miles and 55 miles, respectively, from the Scottish mainland. They are also near Transworld's Buchan Field and the Forties pipeline.



None of those involved—the Department, Amoco or Mesa—would comment yesterday, although it was pointed out in Whitehall that the Government did not normally give reasons for allocating or not allocating individual blocks. Furthermore, it is not obliged to licence all blocks applied for.

It is understood, however, that Mesa—one of the most successful North Sea oil explorers last year—was particularly disappointed. The group had applied for several blocks but failed to receive a single concession.

The Mesa group, which includes P & O (one of the successful fifth round applicants), is continuing to evaluate the shallow water find on the 11/30 block of the Moray Firth.

It is understood that it is not yet in a position to submit a field development plan to the Government, although it is thought that the oil reserves already identified are sufficient to make the field a commercial prospect.

Potential recoverable reserves of 350m.-500m. barrels have been widely mentioned, although none of the estimates has been confirmed by Mesa.

If the third appraisal well, now being drilled to the south-west of previous tests, proved successful, the reserve prospects could be significantly enhanced.

● The Chevron Group's decision to order a third production platform for the Ninian Field is questioned by oil analysts at Wood, Mackenzie in their latest report.

Chevron said this month that about £200m. was to be spent on developing the northern extension of the field, including about £40m. for a steel platform structure to be built at Highland Fabricators' Nigg Bay yard.

Wood Mackenzie estimates that the cost of exploiting this sector of the field would be more than $600m. (about £350m.). As a result of this investment only 100m more barrels of oil would be recovered bringing the field's total recoverable reserves to 1.1bn. barrels.

The rate of return on the third platform would be only 9 per cent. The extra investment would also reduce the Government's taxation by 10 per cent.

"Given the reduced income to the Government and the low return on capital to the company it is difficult to justify the project on financial grounds."

Chevron yesterday rejected the report's conclusions. It said that partners in the Ninian project included "hard-nosed" international companies such as Standard Oil of California (Chevron's parent), ICI, British Petroleum and a State oil undertaking, the British National Oil Corporation. "The decision was taken on sound commercial grounds."

Foreign tourists spend more in shops

By Michael Thompson-Noel

OVERSEAS visitors to London are spending more in shops and stores, according to the latest London visitors survey published by the British Tourist Authority.

Spending in shops by foreign visitors last summer accounted for 40 per cent. of their total spending in London, compared with 36 per cent. the previous summer.

At least seven out of 10 tourists go shopping in London—more than half of them in the Oxford Street-Regent Street area.

The friendliness of Londoners and the history and tradition of the City were the attractions most frequently mentioned in the survey.

A fifth of the tourists questioned singled out London's "atmosphere" as particularly attractive.

Repeat visits

An estimated 7.8m. foreign visitors spent one night or more in London last year. Nearly half of them also made trips to other parts of the U.K.

The capital also attracted 10.5m. visitors from within the U.K.

Overseas visitors accounted for 70 per cent. of London's 1976 tourist income.

On the whole, visitors to London are young—seven out of 10 are under 35.

The survey also discloses that more and more visitors are returning to London for repeat visits.

Two-fifths of the visitors questioned said that they could not think of any problems they had encountered as tourists in London.

There was some concern about high prices, but this has declined over the past four years.

London Visitors Survey, British Tourist Authority, 64 St. James's Street, London, S.W.1.

Richardson predicts renewed growth for finance houses

BY MICHAEL BLANDEN

A CONTINUED role and renewed growth for the finance houses was forecast last night by Mr. Gordon Richardson, Governor of the Bank of England.

He warned the Finance Houses Association, however, that business would not be easy to come by, with growing competition as a result of past changes in official policy and the present implementation of the Consumer Credit Act.

"Nevertheless, there will continue to be sound and profitable business to be done in the fields in which you operate and I believe that the finance house operating with its specialised expertise and with a tradition of innovation and adaptability will continue to have an important role to play."

Mr. Richardson, speaking at the association annual dinner, indicated that while the authorities recognised the separate role of the finance houses, they would not be able to meet all their wishes in relation to the planned legislation on the licensing of deposit-taking institutions.

It was not intended to restrict their business by confining the conduct of current accounts and the issue of cheque books to recognised banks.

Mr. Ronald Barnes, the association's chairman, said that the ability of the finance houses to increase further their lending to industry depended partly on their being able to attract a better supply of medium- to long-term funds.

The availability and reliability of leasing finance would be greatly improved if the rate of corporation tax, like other taxes, were fixed at the beginning of the tax year instead of retroactively.

Industry 'must attract more talent'

MORE TALENTED young people must be attracted into industry, Mr. Leslie Huckfield, Parliamentary Under-Secretary, Department of Industry, said at Maidenhead yesterday.

"We are all agreed on the need to shift more resources into manufacturing industry.

"Part of the solution, I believe, lies in making industry more attractive to students and also in making courses in schools more relevant to industry's needs."

New men join Freight Board

BY IAN HARGREAVES

TWO SENIOR executives in the State-owned National Freight Corporation, Mr. Peter Thompson and Mr. Victor Paige, have been appointed to the Board.

The changes, announced by Mr. William Rodgers, the Minister of Transport, are designed to add the strength of professional transport men to the Board, which previously, apart from Sir Daniel Pettit, the chairman, was composed of part-timers.

Sir Daniel loses his title as chief executive, which passes to Mr. Thompson, but will remain for the remainder of his three-year contract as part-time chairman.

He said yesterday that he had made the appointment of Mr. Thompson and Mr. Paige to the Board a condition of his accepting a further term of office in 1975.

The move is also squarely in line with Mr. Rodgers' belief in the importance of the full-time Board member. There were changes along similar lines at British Rail last month.

Mr. Thompson joined the corporation in 1972 and since December 1975, has been executive vice-chairman (operations). Mr. Paige has been with the headquarters staff since 1970 and has been executive vice-chairman (administration) since December 1975.

Mr. Rodgers also announced the appointment of a part-time recruit to the Board, Mr. Jack Sieve, finance director of Metal Box. This brings the Board to its full strength of 12.

Neither Mr Thompson nor Mr Paige will receive an increased salary following their promotion

'ostal chief eeks better roductivity

y Kevin Done, Industrial Staff

TER years of rising labour ts and declining letter traffic, ductivity improvements in the tal business were vital if rises postal prices were to be re- ined. Mr. Alex Currall, aging director of posts, said night.

he time had come for the oduction of a reliable and e extensive system of con- ious measurement of postal fic, he told a London meeting the Direct Mail Producers ociation and Postmasters.

uch a system would give a ater insight into customer ds and open the way for ential productivity improve- nt.

he Post Office would favour ater flexibility in the next nd of the pay policy discus- ns, so that productivity agree- nts could be designed to give a share of the benefits.

As well as trimming costs seeking to improve produc- ity, the Post Office is anxious arrest the decline in postal ffic.

Vickers sets up washing machinery division

BY KENNETH GOODING, INDUSTRIAL CORRESPONDENT

VICKERS signalled its intention yesterday of becoming U.K. market leader in the manufacture of industrial washing machinery by announcing the formation of a new division, Vickers-Aquamatic.

The group hopes quickly to fill the vacuum left in this particular market because of the liquidation of Centri-Spray, the Slough-based subsidiary of Centri-Spray Corporation of Michigan.

Vickers has had protracted negotiations with the U.S. group with the aim of getting an exclusive licence to manufacture and market its full range of products.

Legal complications have held up a decision about this proposal and, rather than delay any longer, Vickers has formed the new division which "will concentrate on expanding the design, manufacturing and marketing of metal de-greasing and pretreatment machinery, and vehicle cleaning plant."

The company will be based at Gomersal, near Leeds.

Quality allegations rejected

BY MICHAEL DONNE, AEROSPACE CORRESPONDENT

STLAND AIRCRAFT, acting behalf of its subsidiary, stland Helicopters, yesterday ied the Ministry of Defence ejecting suggestions that un- parts were used for repairs Bell Type 47 Sioux light icopters first made under nce by Westland some rs ago.

he allegations that some s for the Bell 47s were ale were made in newspaper orts in the U.S. It was sug- ted that spare parts made by panies other than Bell might e been given false seals of roval.

Vestland said investigations its own behalf and with the istry of Defence failed to duce evidence that unsafe components had been used in any Westland helicopters.

It had been obliged to buy some Bell 47 parts in the U.S. but the method of establishing the quality of the parts had been approved by the U.K. Aeronautical Quality Directorate and officials of the Ministry of Defence.

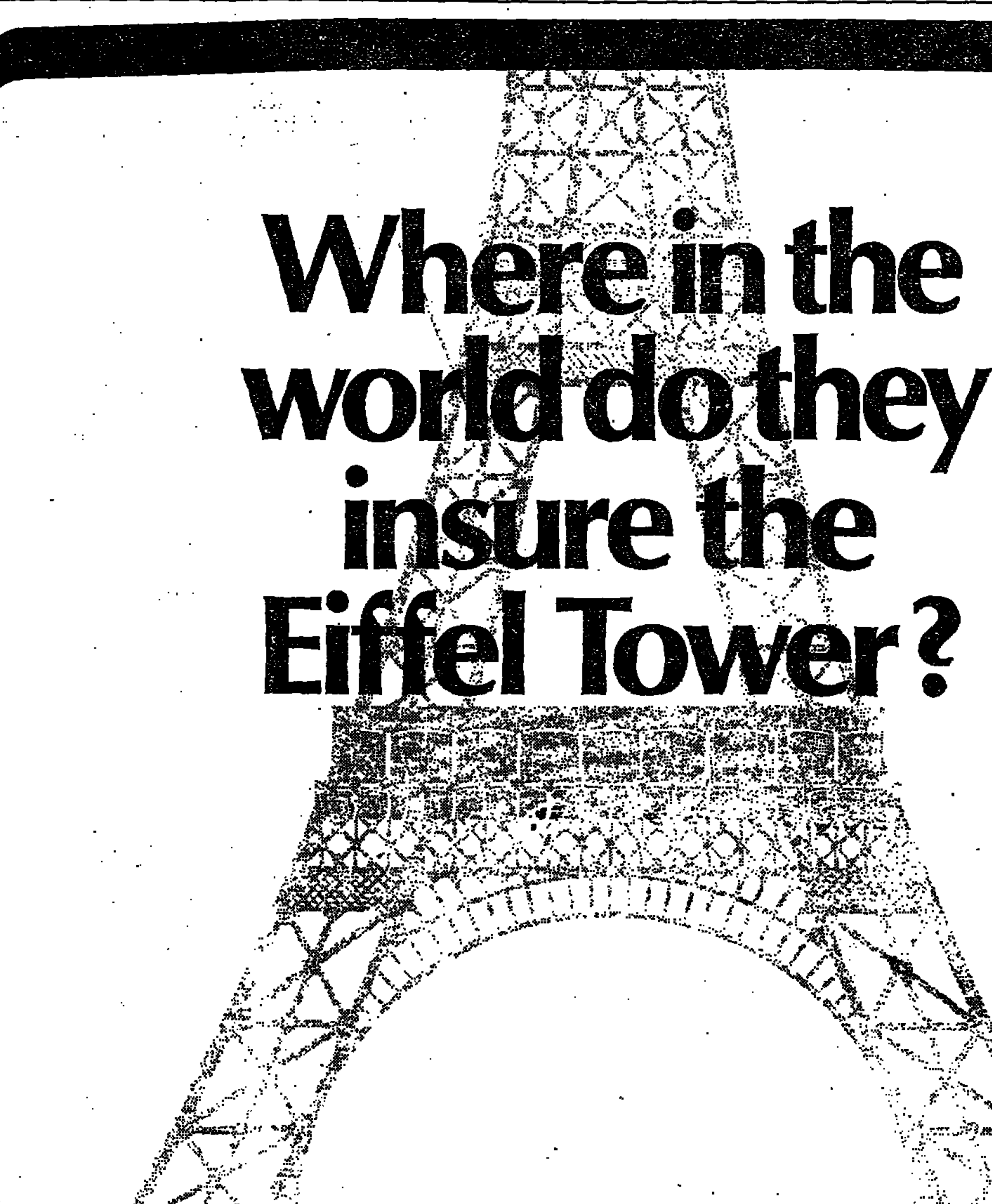
"Following the original allegations (of unsafe parts) made to the U.S. Federal Aviation Agency at the beginning of January, Westland in collaboration with Bell, embarked on a comprehensive re-check of all the Bell parts purchased in the U.S. to ensure they were airworthy, and to establish the truth or otherwise of the allegations being made.

"So far, no reason for placing operational restrictions on these helicopters has been found."

Where Wessex helicopters used by the RAF are concerned, the parts used were made under Westland's own quality control in the U.S. at the request of the Ministry of Defence and subjected to full inspection and qualification.

"The Ministry of Defence and Westland are satisfied that no unsafe components of this type have been issued to the RAF."

Westland said the allegations made in the U.S. were "not relevant" to the Sea King and Commando range of helicopters, whose parts of U.S. origin all come from approved proprietary makers.



PARLIAMENT

Verdict by ships Bill examiners likely soon

By Ivor Owen, Parliamentary Staff

THE VERDICT of the Parliamentary examiners who have been considering whether the Aircraft and Shipbuilding Industries Bill is a hybrid measure is expected to be announced within the next few days.

Asked by Lord Hailsham (C.) in the Lords yesterday when the examiners would "unburden themselves," Lord Peart, Leader of the House, stated: "The grapevine suggests very soon."

Opposition peers led by Lord Orr-Ewing (C.) protested that the House of Lords was being unfairly blamed for the slow progress made with the Bill since it was referred to the examiners on December 8.

Recalling the history of the Bill—reintroduced by the Government under the Parliament Act at the start of the present session after the Lords had insisted on amendments deleting the provisions nationalising the ship repairing industry—Lord Orr-Ewing pointed out that it was first presented in the Commons in April, 1975. During the 22 months interval since then, debate on the Bill in the Lords had only taken 12 days, he contended.

Lord Peart insisted that he did not want to become involved in a political argument. Lord Orr-Ewing knew very well that the Bill had been sent to the examiners, and the examination was still going on.

He told Lord Byers, Liberal leader, that after the Bill had been declared prima facie hybrid by the clerks in the House of Commons, it was "quite proper" that it should be referred to the examiners by the House of Lords.

"We must await their report and then we shall have second reading," Lord Peart added.

Written Answers

Mr. John Osborn (Con., Sheffield, Hallam). Could steps be taken to discourage the deliberate winding up of businesses in one name, the transfer of assets to another name, at the same time leaving unpaid debts to be carried by suppliers already faced with severe cash-flow problems?

Mr. S. Clinton Davis, Under-Secretary. The Companies Acts and the Bankruptcy Acts provide a substantial measure of protection for creditors in the winding-up of companies and of businesses. Evidence produced of any loopholes in the law which are being commonly exploited will be taken into account in the continuing review of the relevant legislation.

Mr. A. P. Costain (Con., Folkestone and Hythe). What has been the Government's annual expenditure on overseas trade fairs during the past five years?

Mr. Michael Meacher, Under-Secretary. Direct expenditure on overseas trade fairs has increased steadily over the five years up to 1975-76 from £3.8m. to £9.5m.

Mr. Philip Goodhart (Con., Beckenham). What action is being taken to promote the sale of British books overseas?

Mr. Michael Meacher. The export services provided by the British Overseas Trade Board are available to the book publishing industry and I understand that they are making good use of them.

Mr. Nicholas Ridley (Con., Cirencester and Tewkesbury). Will the Secretary for Trade initiate an inquiry under section 32 of the Companies Act 1967 into the affairs of Labour Party Properties?

Mr. S. Clinton Davis. This is a company limited by guarantee and, in the absence of issued share capital, the company cannot be in breach of the disclosure provisions of Section 32 of the 1967 Act. I see no grounds for such an enquiry.

Mr. Roger Sims (Con., Chislehurst). Is it the policy to encourage third country trading by British merchant houses?

Mr. Michael Meacher. Yes, Sir.

CALLAGHAN IN UNREAL ATMOSPHERE

BY PHILIP RAWSTORNE

Fifteen minutes of faith, hope and charity—an uncommon experience in the Commons yesterday. So rare, in fact, that the Prime Minister looked round as if to reassure himself that he was in the right place.

After the record visible trade deficit and low industrial production, Mrs. Margaret Thatcher also had her doubts about the Government's direction.

But with an unassuming faith in himself, the social contract and the economic indicators, Mr. Callaghan assured her that we were still on the road to recovery.

"We are moving in the right direction—but not fast enough yet and there is much more to be done," he declared. And no-one actually disagreed with him after he had pointed out that even the Conservative "Right Approach" had sternly warned that there would be no economic miracle just round the corner.

But if he found his faith buttressed by the Opposition, Mr. Callaghan was even more surprised yesterday by its display of political charity.

If he would relieve the churches and charities of the burden of the National Insurance surcharge, said Mr. John Pardoe, the Liberals would not seek to make any political capital out of it.

"I am not used to these generous offers," said Mr. Callaghan, as Labour and Tory MPs rolled with mirth at the thought of the Liberals making political capital out of anything.

But the Prime Minister said that if the Commons could agree on a limited solution to the problem, it would certainly be sympathetically considered.

Mrs. Thatcher, rising graciously to the implied invitation, responded that the Government was likely to encounter more Tory criticism for doing nothing.

That was the cue for the hopeful entrance of Mr. Dennis Skinner. A persistent critic of those honoured for apparently doing nothing, the Bolsover Left-winger advised Mr. Callaghan to discuss the Honours List with his political advisers.

"Then take out a large sheet of clean ..." "Lavender" chorused the Tories "white, not lavender, paper," continued Mr. Skinner. "And write on it ..." he added.

"Skinner" yelled Tory and Labour MPs with hilarious unanimity.

"Resist that remark," Mr. Skinner said firmly, urging the Prime Minister to inscribe instead the abolition of the honours system.

Mr. Callaghan retorted that he had no intention of abolishing such rewards for service. He accepted that Mr. Skinner—the personification of dashed hopes—did not want any honours.

But the Prime Minister wondered, amid laughter, whether this was due to modesty or whether Mr. Skinner had arranged the MPs' acclaim to "put into my head" a proposal that would never otherwise have occurred to him.

Referendum switch provokes rebellion by Labour MPs

BY JOHN HUNT, PARLIAMENTARY CORRESPONDENT

THE SURPRISE announcement that the Government intends to alter the devolution legislation in order to have a consultative referendum in Scotland and Wales rather than a mandatory one sparked off a rebellion led by Labour MPs in the Commons yesterday.

Provoked by this latest somersault on the Scotland and Wales Bill, Mr. Eric Heffer (Lab. Walton), a leading Left-winger, forced a motion for the adjournment of the committee stage so that Mr. Michael Foot, Leader of the House, could bring forward amendments clarifying the Government's intentions.

Mr. Heffer argued that the House was now being placed in the absurd position of debating and voting on a clause introducing a mandatory referendum, knowing full well that the Government intended to change it to a consultative one at a later stage.

Many Conservatives supported his move but the Government was able to defeat the attempt by a majority of 29 (231-202). Had the vote gone against the Government, it would have been a major setback for the Bill and would have resulted in the loss of seven hours of debate on the referendum.

Mr. Foot's sudden intervention to announce yet another change of plan on the part of the Government plunged MPs into complete bewilderment. The Leader of the House only managed to extricate himself after more lengthy and heated wrangling over procedure.

Bravely, Mr. Foot told his critics: "I don't believe the House need get in any tangle at all about what has happened. I have said that I wanted to make a good Bill a better one. This is making it a better Bill."

He also announced that the Government is proposing to revise the question which will go on the referendum ballot paper in order to make it more fair. Mr. Francis Pym, shadow Leader of the House, had strongly criticised the wording of the question in a previous debate.

It had been envisaged that electors would be asked: "Do you agree that the provisions of the Scotland and Wales Act 1977 should be put into effect?" Now the words "Do you agree" will be struck out and replaced by "Do you want."

The reference to the referendum will now be placed at the top of the ballot paper instead of the bottom.

In addition, there will be alterations to the line which emphasises that Scotland and Wales remain part of the U.K. whatever the outcome of the referendum. It will be made plain that this is a factual statement about the provisions of the Act and not a general political prediction. The "yes" and "no" boxes on the paper will be separated.

Changed

Mr. Foot said that amendments on the alterations to the ballot paper would be available to the House when the committee stage resumes to-day. But the change to a consultative referendum could only be brought forward at a later stage.

His statement brought an immediate protest from Mr. Douglas Henderson (SNP, Aberdeenshire E.). "Don't you realise that making statements like this day after day is a sign of the quagmire into which this Bill has sunk?" he demanded.

There was derisive laughter from the anti-devolutionists as Mr. Henderson demanded: "Now you have changed to a consultative referendum, can you give an undertaking that the Government at least will be bound by the result of this new referendum?"

Mr. Foot told him that he misunderstood the situation. A consultative referendum meant that Parliament would retain its sovereignty and would take into account the expression of the people of Scotland and Wales.

"I believe that the referendum result will, of course, be accepted by the House of Commons, and I believe that the House must have the final say in the matter."

Mr. Heffer said that as it now stood in the Bill, the clause could apply only to a mandatory referendum. Unless the wording were changed, he did not see how the House could go on.

There were cries of "Shambles" as he proposed that the House should adjourn so that the Government could come forward with a correctly worded clause on the referendum which MPs could debate.

He was supported by Mr. John Mendelson (Lab., Penistone) who maintained that the only appropriate course for the Government was to withdraw the clause.

Backing also came from Mr. Paul Channon (C., Southend W.) who emphasised that it was a matter of major constitutional importance. There had been a fundamental change to the whole character of the clause on the referendum and it should now be postponed.

...Liberal leader Mr. David Steel supported the change proposed by the Government and thought it was of fundamental importance. He recalled, however, that Mr. Foot and other Ministers had said that the referendum must not become an opinion poll, but should be a mandatory vote with a clear "Yes" or "No" answer.

Now the Government was, in fact, proposing an opinion poll and should, therefore, be prepared to be more flexible about the nature of the questions to be put on the ballot paper.

A leading opponent of the Bill, Mr. Tam Dalyell (Lab., West Lothian) claimed that a consultative referendum would simply bring the House into disrepute. This provoked cries of "It already is."

Mr. Francis Pym, shadow Leader of the House, said that the Government had got itself into an extraordinary situation and the Bill was now bogged down. "It emphasises that this Bill was not well thought out properly. The Government should never have come forward with Scotland and Wales in one Bill," he said.

But he welcomed the fact that Mr. Foot had accepted the two major criticisms of the Referendum clause—that it had not been consultative and that the wording of the referendum question had not been acceptable to the House.

New peers

BARONESS JACKSON of Lodsworth, president of the Institute for Environment and Development, and Lord Baker of Windrush, designer of the war-time Morrison indoor shelter, were introduced and took their seats in the Lords yesterday.

Liberals step up pressure on EEC direct elections

BY RUPERT CORNWELL, LOBBY STAFF

PRESSURE ON the Government to show its hand on the promised EEC direct elections legislation intensified yesterday as Liberal peers launched their own Bill, including provisions for proportional representation, in the House of Lords.

The new Bill, sponsored by Lord Banks, is due to have its second reading in the Upper House on March 8. If, as seems probable, enough Conservative support is forthcoming, the legislation could be through the Lords four or five weeks after that.

Although there is no serious prospect that the Bill will find its way on to the Statute Books nor that it will be given time in the Commons for debate its very presence is an embarrassment guaranteeing that the Government will come under still more insistent questioning about its plans.

The motives of the Liberals are plainly two: to increase the momentum towards direct elections in the U.K. by May or June, 1978, as scheduled, and to advance the cause of PR.

However, the most persuasive argument for the Liberal proposals is their simplicity. The Bill gets round the tendentious issue of redrawing boundaries for the 81 British seats at Strasbourg by using, with minor modifications, the existing regions laid down by the Regional Planning Board.

These would create 12 multi-member constituencies in England, and one each for Scotland, Wales and Northern Ireland. Elections would employ the single transferable vote method of PR for which the Liberals have long pressed.

Hitherto, the Government has been an implacable opponent of PR in any guise. However, on a European level, the system has certain attractions for Labour even though it has said it will use the existing first-past-the-post method for ordinary U.K. elections.

The constituencies for the EEC poll would be roughly eight times larger than those for Westminster and would almost certainly exaggerate the distortions already inherent in the winner-take-all system.

Liberal leader Mr. David Steel has predicted that on current voting trends, the Conservatives could capture 60 seats in England leaving Labour with only five or six and that the Scottish Nationalists and Ulster Unionists would make a clean sweep in Scotland and Northern Ireland.

The final argument of the Liberals is that following the French decision to use PR for the European elections, Britain would be the only country that had not adopted the system and this could damage the balance of "European" parties at Strasbourg.

Minister finds African pay co-operation

ALMOST ALL the British subsidiary companies in South Africa, asked to make available information on wages and conditions of African employees, had co-operated with the Government, Mr. Edmund Dell, Trade Secretary, said yesterday.

In a Commons written reply, Mr. Dell told Mr. Jeff Rooker (Lab., Perry Barr) that only six companies had declined to publish information and he hoped they would reconsider.

The information now available covered the "overwhelming majority" of Africans employed by British subsidiaries in South Africa.

By-pass listed for Newcastle

A scheme for a by-pass west of Newcastle will be added to the Trunk Road Preparation Pool, the Department of Transport said yesterday.

The scheme would extend the present Gateshead western by-pass from the Scotswood Bridge over the Tyne to join the A69 Carlisle-Newcastle trunk route and the A696/A68 Newcastle-Edinburgh trunk route. It would allow through traffic between A1(M) on the south of the conurbation and Edinburgh (via Jedburgh) to avoid the central part of Newcastle and Gateshead.

Industry link with students examined

FINANCIAL TIMES REPORTER

MRS. SHIRLEY WILLIAMS, Education Secretary, told MPs yesterday she is studying how best to strengthen the existing links between industry and higher further education.

She added that her department was also discussing with schools the possibility of making industrial studies part of the curriculum.

Replying to Mr. Nigel Forman (C., Carshalton), Mrs. Williams said it was necessary for young people to familiarise themselves with the workings of industry.

She said: "I hope to announce proposals relating to the schools when the extensive consultations, now in progress, are complete. I am also considering how the many existing links between industry and higher further education might be strengthened but intended to have discussions with others concerned before reaching conclusions."

Mr. Forman had complained that the "crushing" level of taxation did not encourage young people to embark on a career in industry.

Mrs. Williams said she was in touch with the CBI and Chambers of Commerce about relationships between schools and industry.

Mr. Norman St. John-Stevas, shadow Education Secretary, said that a considerable section of the Labour Party claimed that industry was there to exploit those working for it.

Earlier, Mrs. Williams had been asked by Mr. Michael Marshall (C., Arundel), about the Bullock report on literacy entitled A Language for Life.

She replied that although the recommendations of the report were mainly directed towards local authorities and teachers, her Department and H.M. Inspectorate had been able to take action on a number of aspects.

She added "In particular, the Department has allocated resources to the adult literacy campaign, the Assessment of Performance Unit has used the report as a starting point in its approach to a new monitoring system, and H.M. Inspectors have held many conferences and courses on matters covered by the report."

The Education Secretary went on to point out that the report did not subscribe to the view that standards of literacy have fallen over the past 10 years.

Premier warns on pace of inflation

BRITAIN MUST follow policies which ensure that the pace of inflation does not increase, the Prime Minister again insisted in the Commons yesterday.

Much depended, he stressed, upon the level of increases in earnings during the next 12 months. An unwarranted level of increases could only lead to more inflation and higher unemployment.

"There is no escape from that dilemma," Mr. Callaghan declared.

Commenting with approval on the statement made by Lord Watkinson, President of the CBI, that he would like to see the rate of inflation brought down to 5 per cent. by the middle of next year, the Prime Minister added: "Who wouldn't?"

The Government, he assured the House, would continue to work for policies which were designed to prevent the rate of inflation increasing and to secure export-led growth more than consumer-led growth.

Mr. Callaghan agreed with Mr. Jack Ashley (Lab., Stoke S.) that the social contract must be adhere to and suggested that in looking for support from the Opposition for its economic objectives the Government would have to rely on written statements in the Conservative policy document "The Right Approach," rather than anything said by Mrs. Margaret Thatcher.

The Prime Minister turned down a suggestion by Mr. Kenneth Baker (C., St. Marylebone) that he should reprimand Sir Ronald McIntosh, chief of the National Economic Development Council, for rebuking Mr. John Cousins, a member of his staff, who wants to see a return to free collective bargaining and the abandonment of incomes policy.

Mr. Cousins is a leading contender for the post of general secretary of the Transport and General Workers' Union when it falls vacant next year, with the retirement of Mr. Jack Jones.

Urging the Prime Minister to "speak to Sir Ronald," Mr. Baker said it had been rumoured that Mr. Cousins had been threatened with unemployment for daring to speak out against Government policy.

Employees of NEDC, he maintained, were not civil servants. "You should condemn threats to employees of NEDC because they make statements which are different or hostile to Government policy."

Mr. Callaghan answered: "I am quite sure Sir Ronald is perfectly capable of handling this, and, knowing Mr. Cousins, I know very well that he is."

LABOUR NEWS

Leyland men urge strike to gain pay freedom

BY ARTHUR SMITH, MIDLANDS CORRESPONDENT

REPRESENTATIVES OF British Leyland's 130,000 manual workers voted in Birmingham yesterday to call for a one-day strike and lobby of Parliament in support of an end to pay restraint.

A national conference has been called in Birmingham for April 3 to "mobilise the whole trade union and labour movement" in support of a return to free collective bargaining when the present phase of pay policy ends on July 31.

Mr. Derek Robinson, chairman of the unofficial but powerful Leyland stewards combine, said that there could be "extensive difficulties" in maintaining the present stage of pay restraint. The TUC and the Government would do a deal on a further round of incomes policy "at their own risk."

The unanimous vote by 300 Leyland stewards represented the feeling of "millions of people who are fed up to the teeth with the social contract and all it means and are prepared to do something about it."

Mr. Robinson emphasised that the stewards were not pre-empting, but merely seeking to influence, the debate now taking place about the future of pay policy. The aim was to change Government thinking and ensure the survival of a Labour administration.

The stewards decision comes on a critical day for Leyland Cars when production has almost halted as the result of a series of disputes. By last night more than 18,000 workers were either on strike or laid off.

A discussion document endorsed by the stewards yesterday blamed the present situation on incomes policy. "Inside Leyland we are sitting on a powder keg. Our members are so frustrated that every small issue is blown up out of all proportion."

The document will be circulated to all British Leyland plants which will vote on whether or not to support the one-day strike.

A more immediate problem for British Leyland is the threatened strike on Friday by toolroom workers pressing for separate negotiating rights. The powerful Longbridge, Cowley and Castle Bromwich plants have pledged their support, but backing in other plants is weak.

In London, the chairman of the unofficial Leyland toolroom committee, Mr. Roy Fraser, said that if the Amalgamated Union of Engineering Workers intervened officially or Mr. Hugh Scanlon, AUEW president, would talk to the management on their behalf, they would consider calling off the strike.

If the strike went ahead, there would be serious disruption to Leyland within a matter of days, he said.

Mr. Fraser, who had been lobbying Midlands Labour MPs at the House of Commons with other members of the committee, claimed the union had rebuffed them. The action was not aimed at the present incomes policy, but at getting some relief in the next phase, he added.

Meanwhile, the national executive of the AUEW engineering section has endorsed the stand taken by Mr. Scanlon when he visited Birmingham last week.

Mr. Scanlon said after the meeting that the executive backed his statement that "a bargain made is a bargain kept." Support for the present incomes limits was union policy and that would be adhered to until the limits were replaced.

Last night, three strikes at Castle Bromwich, Canley and Cowley stopped production of Jaguars, Rover 3500, Minis, Princesses, Dolomites, Stags, Maxis and Marinas. The only model expected to be assembled to-day are the Allegro, TR7 and MG.

● Production of the Fiesta and Cortina at Ford Motor's Dagenham factory could be hit to-day by a strike of about 360 workers on the night shift after the dismissal of an assembly worker.

Construction sector favours national work and pay deal

BY ROY HODSON

BRITAIN'S £4bn.-a-year engineering construction industry, which has been severely criticised recently for poor site performance, took a step towards agreeing upon the need for a new national pay and conditions agreement yesterday.

At a special National Economic Development Office Conference in London such an agreement, which the Office has backed for several years, won support from Mr. John Baldwin, general secretary of the construction section of the Amalgamated Union of Engineering Workers, and several management representatives.

Action plan

Mr. Baldwin said that the recent NEDO report on engineering construction performance at British sites, prepared by a tripartite team of managements clients and the unions, put the British industry "in the fourth division among international construction industries."

He put forward a four-point action plan, including a national agreement proposing:

1.—To de casualise jobs on the big engineering construction sites;

2.—A national register of workers;

3.—More involvement by the unions and management in the training of apprentices and adult workers;

4.—A much higher basic rate of pay.

British engineering construction projects took longer than similar projects abroad the NEDO report found. It also discovered that manning levels were considerably higher on the British sites studied; that productivity was lower on British sites than abroad; that absenteeism was higher on British sites; and that a smaller part of the working day was actually spent on the job on British sites than on comparable sites abroad.

Mr. Earl Causey, chief construction manager of Lummus, blamed a decline in productivity on the big British engineering sites during the past year on the lack of future orders in the pipeline.

Other factors included wage restraint and the problem of skilled people and staff taking jobs abroad to earn better money.

Mr. Causey also supported the idea of a national agreement for the engineering construction industry.

There should be a high consolidated pay rate of not less than £2 an hour. But such an agreement if it was to be effective had to be between all the employers' organisations.

Scottish unions to protest over cuts

By Our Labour Staff

MORE THAN 60,000 local government workers in Scotland are to strike for a day on March 9 in protest at the Government's cuts in public expenditure.

Support from other workers to join a mass demonstration in Glasgow that day will probably be sought by the Scottish TUC.

The main union involved, the National and Local Government Officers Association, is to instruct its members to support the strike following the decision of the NALGO special conference last month to make the strike mandatory.

Backing for the strike is also coming from the National Union of Public Employees and the Association of Scientific, Technical and Managerial Staffs.

The Strathclyde region—the largest local authority employer in the U.K.—has also been one of the areas worst affected by the expenditure cuts.

NALGO's emergency committee yesterday finalised details of its instructions to branches on implementing their national overtime ban from April 1.

Whitbread men may end strike to-day

By Our Labour Staff

ABOUT 900 Whitbread brewery workers at Luton, Beds., whose five-week strike has severely disrupted beer supplies to the South-East, are expected to decide to-day whether to accept a peace formula and return to work.

The formula, reached after lengthy talks between management and senior officials of the Transport and General Workers' Union, is likely to allow a £20m. delivery vehicle and distribution system to go ahead. Similar systems work successfully in other parts of the country.

The dispute has led to hundreds of Whitbread pubs in the South-East having only limited supplies of beer since last month.

Plan to move 300 jobs from sit-in factory

BY OUR LEICESTER CORRESPONDENT

A SIT-IN by 800 workers at the Wildt Mellor Bromley textile machinery factory, Leicester, in protest against closure plans, entered its second day yesterday.

The men's decision was reinforced by a report that 300 of the 386 jobs to be lost would be transferred to the factory at Bookham, Surrey.

Wildt Mellor Bromley is part of Sears Engineering. Three weeks ago plans were announced to close the Aylestone Road factory, Leicester.

The company said that in spite of its international reputation, business had been hard hit by the recession.

The company statement said the closure was linked with plans to consolidate the operations at the more modernised St. Saviour's Road factory, Leicester, to which the balance of the 800 jobs will be transferred after the redundancy of 386.

The sit-in came as a complete surprise. Management arrived on Monday to find themselves locked out. Yesterday they were moving files and office equipment to two Leicester hotels to work from there.

Temporary dormitories have been set up in parts of the factory. The workmen have the support of a newly set-up "wives support group."

SNOW REPORTS

	Depth (cms) L	Depth (cms) U	State of Piste	Weather	°C
Andermatt	60	300	Good	Fine	6
Excellent skiing on all slopes					
Crans-Montana	200	380	Good	Snow	0
Good snow, poor visibility					
Flims	25	190	Good	Fine	3
Ideal skiing conditions					
Grindelwald	16	85	Fair	Cloud	0
South-facing slopes excellent					
Igls	7	70	Icy	Fine	−5
Good skiing above 1,500m.					
Isola 2,000	250	350	Good	Sun	0
Excellent skiing conditions					
La Plagne	65	250	Good	Snow	−7
Excellent piste skiing					
Niederau	40	100	Fair	Fine	−2
Good skiing on hard pistes					
Sauze d'Oulx	200	320	Good	Fine	5
Good skiing conditions					
Tignes	175	300	Good	Snow	−1
New snow on good base					
Val d'Isere	180	300	Good	—	−4
Crust facing south					
Zermatt	35	180	Good	Sun	4
Excellent skiing conditions					

The above reports supplied by representatives of the Ski Club of Gt. Britain.

GERMANY

Berchtesgaden	15	70	Fair	—	−2
Garmisch	18	80	Poor	Fine	−7
Hindelang	15	45	Fair	—	−1
Kleinwalsertal	90	140	Good	—	—
Mittenwald	10	70	Fair	—	0
Oberammergau	10	70	Fair	—	−2

SCOTLAND

Cairngorm: All runs complete, new snow on a firm base. Vertical runs 1,600 feet. Access roads slight snow. Snow level 1,500 feet.

Glenshee: Main runs complete, new snow on a firm base. Lower slopes ample nursery areas. Vertical runs 1,000 feet. Access roads clear. Snow level 1,500 feet.

Glencoe: Main runs and lower slopes complete, new snow on a firm base. Vertical runs 1,500 feet. Access roads clear. Snow level 1,600 feet.

Forecast: Cloudy with sleet or snow, perhaps drifting in strong south-east winds. Brighter with wintry showers later.

Engineers group seeks TUC aid in conflict

BY OUR LABOUR STAFF

THE ELECTRICAL Power Engineers Association is writing to the TUC to protest that its attempts to recruiting and gaining recognition in the private sector were being blocked by other TUC unions.

It wants the TUC to help find a solution after being told by the supervisory section (TASS) of the Amalgamated Union of Engineering Workers on Monday that there was no room in private engineering for another union, particularly one which was not party to agreements in the industry.

The conflict stems from the decision last year of the association, which was formerly confined to the nationalised electricity supply industry, to open its membership to engineers in the private sector.

Already there has been friction in a number of plants between the association, TASS and other unions in the Confederation of Shipbuilding and Engineering Unions which has taken a collective stand against it.

Several disputes are due to be heard by the TUC under the heading of the Bridlington "no poaching" rules.

Electrolux pay structure to be studied

THE EQUAL Opportunities Commission has decided to investigate pay at Electrolux, Luton, Bedfordshire. This is the first time it has used its powers on employment under the relevant section of the Sex Discrimination Act.

Its intervention follows a suggestion by Mr. Justice Phillips, who said at an Employment Appeal Tribunal hearing that a coherent wage structure might be better achieved by negotiation with the commission's help rather than litigation.

A Bedford Industrial Tribunal decided seven women were entitled to equal pay. Electrolux lost its appeal to the Employment Appeal Tribunal. The judge said there were hundreds of claims outstanding and the circumstances of each applicant were not identical.

N. Sea groups recognise unions

BY OUR OWN CORRESPONDENT

AGREEMENT HAS been reached on procedures for establishing union recognition for the labour force working on North Sea oil rigs and platforms.

After a three-hour meeting in Aberdeen yesterday between the TUC-recognised Inter-Union Committee of full time officials and the U.K. Offshore Operators Association, the union group was confirmed as the sole negotiating body, through which claims for recognition must be progressed.

The unions, having now secured a channel recognised by the employers for securing membership after three years of almost no progress, can be expected to intensify their efforts.

After the meeting, both sides said that agreement had been reached on machinery which would allow the unions to present their claims for recognition, but declined to go into details.

It is understood that draft proposals presented by the committee guaranteeing the position of the Inter-Union Committee in any negotiations were accepted by the operators.

The proposals say that any union seeking recognition must be a member of the committee, and must notify it of any intention to secure bargaining rights. Applications must specify for which oil or gas field it intends to cover.

The Management Page

EDITED BY JOHN ELLIOTT

Terry Dodsworth profiles the 29-year-old managing director of a major part of British Leyland

Fast route to the top

DISCUSSING British Leyland's present, well-known management weaknesses, Mr. Alex Park, its chief executive, once said that he had no alternative but to put young men "into the hothouse and hope that they will bloom."

This is a brave policy, with obvious inherent weaknesses: Leyland itself had no little trouble 18 months ago with Mr. Geoffrey Robinson, who turned from high flier into enfant terrible when he chose to disagree with the group's plans for his own little bailiwick at Jaguar Cars. Since then, as he moved into politics and became a Labour MP, Robinson has emerged as a strong critic of the group's policies.

But this episode does not seem to have weakened the corporation's appetite for youth: last week it appointed a 29-year-old, John Neill, to the vitally important managing directorship of the parts division.

Neill conjures up an irrepressible image of a young man in an extremely big hurry. He had only been at Leyland for three years, and it is just seven since he left university. Yet to-day he finds himself with 3,600 workers, a £200m. turnover, and one of the most profitable units in the whole company under his control.

Unlike most of the present generation of top Leyland management, he does not come from a financial background. He first came to the notice of Leyland's top management on his brash and rather bizarre decision to take Unipart, Leyland's "competitive" parts concern, into the girlie calendar business. This was a highly unorthodox move for a company not much given to publicising itself at that time: and, more to the point, it infuriated Lord Stokes, the then chairman of the group.

After being summoned to head office to explain his extravagance—following the hallowed traditions of the calendar business the model had been flown to a tropical island to be photographed—Neill managed to persuade Lord Stokes that it was all in a good cause. The calendar stayed and Neill emerged, as he puts it, with his marketing strategy for Unipart intact.

The Unipart calendar starts where Pirelli left off, with a finely-tuned combination of elegance and exposure. It was designed, according to Neill, as part of a grand strategy to turn Leyland's parts organisation into an aggressive sales company. His salesmen would go round and drop off the first sheet of the calendar—it comes in single sheets—and return a month later with the next sheet and, he says, to mounting interest. He claims that sales of gaskets, one of Unipart's most pedestrian products, were raised by 400 per cent. while the first calendar campaign was mounted.

So behind all the gimmickry, there was a serious point. Neill's problem, as head of merchandising and then of marketing within the division, was to change the inherited attitudes towards the market which meant that salesmen had become little more than order-takers.

The background to the emergence of this new way of treating the parts operation at Leyland is the wave of competitive pressure which swept through the industry during the 1960s. Parts replacement has always been quite a lucrative business. But with a large segment of the operation tied to manufacturers' patented equipment, a degree of complacency had crept in which made it a natural target for predators. Specialist parts manufacturers, such as Quinton Hazell, began to emerge to attack the competitive parts market—bits and pieces which are not patented—while the established component producers also began to move into distribution with the aim of grabbing some of the margins on replacement for themselves.

The car manufacturers have now reacted in two ways. First, they have gone more aggressively into parts distribution, branding their goods, selling into the retail trade, and gearing up activity in their garage outlets. Second, they have moved more strongly into competitive parts both for their own vehicles and for other manufacturers' cars. Unipart (Leyland), Motorcraft (Ford), Mopar (Chrysler) all sell bits and pieces for each others' vehicles and are moving into foreign cars as well.

The marketing battle that has ensued from all this competitive activity has brought into the parts business the high-spending, aggressive sales techniques more commonly associated with fast-moving consumer products.

These techniques were most in evidence at Leyland with the development of the Unipart "shops," the display centres in garages which were conceived and launched by Neill himself. These display areas are meant to attract customers with a blend of bright packaging and strong advertising and promotion, in which the local Leyland dealer is backed up by a Unipart team advising on any managerial problems that arise. In the past two years 400 of these centres have been opened, and there is no doubting the enthusiasm of Leyland dealers for the development.

Mr. John Neill with a page from the calendar he introduced for Leyland's Unipart business.

Despite his contagious enthusiasm for what Unipart has been doing, Neill communicates it in relatively sober managerial jargon. After university at Strathclyde, in which he spent a lot of time on student affairs—"people used to clap when I appeared at lectures"—as well as taking both an MBA and a degree in marketing and economics, he joined AC Delco, the General Motors parts subsidiary.

So the areas of modern marketing like setting up programmes, giving presentations, establishing targets, making people stick to objectives, getting rid of them if they don't—are familiar. His first initiative in his new position was to set much higher targets for next year.

The next big task is to switch to a more general management role. He has landed in the job with a challenge right on his doorstep. The parts division's main warehouse at Oxford is at present strike-bound, and work is gradually grinding to a halt.

With only a week in the managing director's chair behind him, he is moving gingerly, confining himself to general observations about the desperate need in Britain to settle differences without taking action which simply damages everyone. But he has already devoured the voluminous documents which set out the company's procedural agreements. "I now understand the rules," he says, "although I don't necessarily understand the game. But I shall learn."

BUSINESS LAW

The high cost of injuries

BY A. H. HERMANN

THE EXTENT to which manufacturers should be liable for injury and damage to consumers caused by defects in their products, even if they were not negligent in producing them, is an increasingly pressing question. Other related questions are whether the liability should be limited — and whether the insurance industry can cover it—or, whether the State should be responsible for the innocent victims of technological advances pursued by equally innocent manufacturers.

In Europe, these points are being hotly debated in governmental and inter-governmental commissions and only from time to time do they gain public notice—mostly in the wake of exceptional disasters like that caused by the administration of Thalidomide to pregnant women.

The situation is quite different in the U.S. where courts award substantial damages and, more recently, also punitive damages. Nor is the U.S. product liability problem linked with exceptional disasters only, like the DC10 Turkish Airlines crash outside Paris—it is the everyday worry of medium-size and small manufacturers of pharmaceuticals, toiletries, electrical appliances, motorcars, machine tools and even such mundane products as tin-openers.

Self-insurance

Giant companies can budget against these responsibilities and practice self-insurance. But smaller concerns must insure and some of them find they can no longer afford the rising insurance premiums. Not only the viability of individual enterprises, but of whole industries—such as the manufacture of woodworking machines—is said to be threatened. Industry and insurance companies claim that the entire U.S. economy and in particular its export capacity is threatened by a "product liability crisis."

The need to provide for compensation to the consumer of mass produced goods, some of which are bound to misfire as a side-effect of incessant innovation, is now generally accepted.

In the end provision against such risks must be borne by consumers collectively and the only question remaining is whether this should be done by including the cost for such provision in the selling price or by taxation. The U.S. public, still wary of the idea of the welfare state, opted for the former. That it led to such an escalation of claims and awards is due to three peculiarities of litigation in the U.S.

The first growth factor in the U.S. legal profession's "product liability industry" is the system of contingency fees. The attorney (as the U.S. combination of solicitor and counsel is termed) meets the costs of unsuccessful action but is rewarded by between 25 per cent. and 50 per cent. — in most cases 33 per cent.—of the damages awarded to his client if successful. However, the system leaves high and dry those who cannot hope for an award of over $15,000 since the attorney's outlay in bringing the action is estimated at some $4,000 to $5,000: a third of $15,000 would not reward his efforts sufficiently.

> How much compensation customers should get from manufacturers for injuries caused by faulty products is being hotly debated in Europe at present

On the other hand the system opens the door to courts to those who have higher claims but could not meet the costs of litigation if unsuccessful — a risk which in the U.K. bars from courts all who are not poor enough to receive Legal Aid and not rich enough to bear the enormous costs themselves.

Another advantage of the contingency fee system is that the attorneys weed out over-optimistic litigants who have either no case or at best a weak one, and this protects the courts from an even greater congestion of work. However, some of the worst effects of this system come to the fore in two other important aspects of U.S. litigation. One is the trial of product liability cases by jury, and the other the admissibility of "demonstrative" evidence which enables the attorney, who is financially interested in the result, to go to great lengths in order to impress the jury. Slides and films are projected in the courtroom to demonstrate the weaknesses of the product in simulated accidents and animated cartoon films, showing the degree of care which the victim will require and the miseries he or she will suffer, are sometimes ordered in Hollywood studios at costs reaching up to $70,000.

Representatives of European industry were made acutely aware of the American product liability problem at the First World Product Liability Congress held in London recently. It was a most unusual conference and the issues involved were presented in a dramatic confrontation of opposing factions. Representatives of medium-size U.S. industry painted the picture of impending gloom with a prophetic fervour.

Mr. Ralph Nader, the pioneer of American consumers, answered them over an amplified transatlantic telephone link while his picture larger than life was screened in the congress hall. He protested that the "product liability crisis" had been artificially induced by a collusion between industry and the insurers who are pressing for legislation which would clip the consumers' rights. He warned against EEC proposals to set upper limits for liability—this would enable manufacturers to budget against their liability instead of improving the safety of their products.

Liability

The extent of the problem is being systematically exaggerated, said Mr. Nader; there were not more than 40,000 product liability cases pending before U.S. courts at present. His European audience was impressed—but not quite in the way he intended. They were even more alarmed when Mr. Heinz Kroeger of the EEC Commission explained that the EEC's projected directive differs from the present law of European countries by making the manufacturer responsible even if he was not negligent—thus coming close to the practice of U.S. courts.

Mr. John Fraser, Minister of State for Prices and Consumer Protection, who addressed the conference provided some reassurance. In his opinion acceptance of the broad principle of product liability is right and probably inevitable. But there should be limitations so as to avoid adventurism by lawyers and the stifling of innovation.

BUSINESS PROBLEM

BY OUR LEGAL STAFF

Taxing overseas dividends

Under tax on overseas dividends (September 15) you referred to section 122 (1)(a) of the Taxes Act. The Tax Inspector here refuses any bank charges on collection of Australian dividends and refers to "the basis of assessment under Schedule D cases 4 and 5 (overseas income) is the same as under Schedule D Case 3 (Interest receivable etc.), that is the preceding year basis normally applies with special rules for new sources." As the actual cash income received is quite a bit less than the figure assessed and not accounted for by bank charges I can only conclude that the rate of exchange figure used by the Inspector is different from that used by the remitting bank. Could you comment, please?

If the Inspector persists in his refusal to allow the deductions and allowances to which you are entitled under subsection 1(a) of section 122 of the Taxes Act, tell him that you wish your appeal against his assessment to be heard by the Special Commissioners: this should quickly resolve the impasse in your favour.

On the question of the rate of exchange, perhaps we may quote from a reply published in the Finance and the Family column on June 12, under the heading "Exchange control":

1972-73	1973-74	1974-75	1975-76
£1=$A2.013	$A1.662	$A1.69	$A1.646
$A1= 49.677p	60.168p	59.1716p	60.753p

"From what you say, we presume that you are resident, ordinarily resident and domiciled in the U.K. (and resident here for exchange control purposes also). On that basis, your Australian investment income for the purposes of assessment under case V of schedule D should be measured by reference to the London buying rate for Australian demand drafts on the date on which each dividend was payable; this is implicit in the legislation but is not spelt out anywhere. In practice, if the taxpayer does not object, the Revenue often uses an average rate of exchange: whether this benefits the taxpayer or the Revenue depends on how the dividends are spread (or bunched) over each 12 months."

The average rates of exchange adopted by many Inspectors for case V purposes are as shown in the above table.

If the strict exchange-rate basis is adopted, you should bear in mind that fluctuations in the £/$A exchange rate while funds are lying in your Melbourne bank account may give rise to capital gains (or losses), under paragraph 11A of schedule 7 to the Finance Act 1965, as amended. It is hard to advise you without some idea of the figures involved, but no doubt the Inspector will be prepared to accept a working compromise when he realises that he has misinterpreted section 122(1)(a) of the Taxes Act.

★

No legal responsibility can be accepted by the Financial Times for the answers given in these columns. All inquiries will be answered by post as soon as possible.

Business books

The Control of Staff-Related Overhead, by A. Brearley. Macmillan, £10. An examination of the techniques available to improve staff productivity, the book provides a detailed study of the effectiveness of four representative programmes.

Price Theory by Milton Friedman. The Aldine Publishing Company, Chicago, £9.95. The author has updated this book, originally published in 1962.

Swindling and Selling by Arthur A. Leff. The Free Press, $10.95. This sets out to uncover the underlying elements common to both congames and modern mass merchandising and advertising.

How to Finance Your Company by Cyril Aydon. Business Books, £6.50. A comprehensive guide to numerous ways of financing a company.

The Social Challenge to Business by Robert W. Ackerman. Harvard University Press. In this book, Mr. Ackerman deals with the adaptation of large corporations to the new social climate.

The Basic Arts of Marketing by Ray L. Willsmer. Business Books, £8.95. A marketing organisation is not a business necessity; acceptance of the marketing approach is. This book shows how to orient your thinking to this end.

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WEDNESDAY, FEBRUARY 16, 1977

Soares knocks at the door

PORTUGAL'S new timetable for EEC entry, sketched out by Dr. Mario Soares, the Prime Minister, in London yesterday appears to involve a more rapid move to full economic integration than he has previously suggested. Only last week, Dr. Soares was talking of the need for a 10-year transitional period; now he says Portuguese industry will be able to bear the full brunt of EEC competition by 1985. At the same time, he has removed any lingering doubts about the timing of his Government's formal membership application. This, he has confirmed, will now definitely be lodged in Brussels next month, in the expectation of a decision by the Nine to open entry negotiations by early next year at the latest.

Agriculture

But Dr. Soares has left a number of important questions unanswered. He was less than totally clear at his Press conference about the precise target date he envisages for full membership, and he made no mention of agriculture, which is bound to be one of the most difficult issues for the entry negotiations. He has also accepted, in his talks with Mr. Callaghan, that there are a large number of serious economic, social and financial problems that will have to be tackled before full membership can be achieved in practice. What he is really seeking is not so much immediate entry as general political acceptance by the Nine that Portugal has a valid case.

If this recognition is not forthcoming, Dr. Soares believes that the authority of his minority Government will be undermined and the chances of a Communist take-over immeasurably increased. It is a card he has repeatedly played in the past few months, warning the Nine of the threat of a "European Cuba" in Portugal with the danger of a domino reaction throughout Southern Europe, starting with neighbouring Spain. The point has not been lost on the Nine, who now seem agreed that it would be most unwise to respond with a political rebuff to Lisbon, even if they view the prospect of an early Portuguese entry application with little relish. Their line so far has been to stress the political importance of links with Portugal while underlining the economic difficulties.

But these are not the only considerations. A number of EEC Governments, particularly those of the smaller countries, are far from happy at the alacrity with which the Community rushed into entry negotiations with Greece and do not want a repeat performance with Portugal. Few people now seriously question Greece's right to early membership, but there are plenty who doubt whether the Community is ready to take on two new members in a short space of time, especially as Spain is waiting in the wings to put in its own application later in the year. Countries like Belgium, who most fear the Community's dilution into a loosely-knit free trade area, have already suggested that some temporary kind of half-way house should be found for Portugal between association and full membership.

Second chance

Portugal's case for full membership in the long run can hardly be denied and the Nine should acknowledge it. Every democratic country in Europe has the right to apply for membership and the Nine have every interest in bolstering Portugal's fledgling democracy. It would be unwise to disappoint Dr. Soares, who has staked the future of his Government on a favourable response. But that does not mean that Portugal should be encouraged to join too hastily. Time is needed both for Lisbon to put the country's economy in order, preferably with Community help, and for the Nine to give serious thought to the long-term consequences of enlargement. They failed to do so when Greece applied; Dr. Soares is about to provide them with a second chance.

Slow recovery in output

INTERPRETING THE index of industrial production is nowadays more than ever an art rather than a science, but at least it is now possible to reconcile without too much difficulty the accounts of recent experience given by the Central Statistical Office and the Confederation of British Industry. Until a couple of months ago the former was reporting production as virtually stagnant while the latter, on the basis of its industrial surveys, was reporting a very gradual recovery. The two now seem to be much more in line with one another.

The picture given by the CBI survey held last month was this. The proportion of firms working below capacity had fallen for four successive surveys, from a peak of 78 to 64 per cent.; for comparison, the proportion working below capacity 12 months after the turn of the previous business cycle was only 52 per cent., so that the recovery appears to be real but relatively slow. The direct question about output is still a little ambiguous, since value means little in a period of rapid inflation and the question has been asked in terms of volume for less than two years.

1975 nadir

For what it is worth, however, the answer to the value question does—making a rough-and-ready allowance for price movements—suggest a gradual rise in real output over the past 18 months while the answer to the volume question does show a consistent recovery trend since the summer of 1975. It was at about that time that the official index of production, too, touched its lowest point. The recent trouble with the official index has been that it has fluctuated from month to month without showing any clear trend, and the official statisticians have cautiously concluded that the underlying trend has been unchanged.

The statisticians have several good reasons for caution. One is that the majority of the series which go to make up the index involve translating current data into 1970 prices, a process which is inevitably hazardous when price differences are as large as they have been recently. Another is that many of the series are based on delivery of goods rather than actual output, and this can involve short-term distortions of some magnitude—which the CSO attempts to estimate—when stock levels are changing. A third is that the figures are seasonally corrected, and these corrections may themselves be a source of error when holiday patterns alter, as with the Spring Bank Holiday in the middle of last year and the prolonged Christmas holidays at the end of it.

Expectations

For all this, the official interpretation of the index now is that production overall rose in the last few months of 1976 after changing little in the summer. Overall production is thought to have risen by about 1½ per cent. between the third and fourth quarters and manufacturing production by about half as much. This is much more consistent with the CBI findings, as is the conclusion that output has been rising only in the intermediate and consumer goods industries: in the investment goods industries it is still weak—a fall of 0.3 per cent. between the third and fourth quarters of 1976 according to the CSO, a high (76 per cent.) and unchanging proportion of firms working below to capacity according to the CBI. This position may alter if investment plans work out according to the common official and CBI expectation. The main worry about the future lies in the answer to the CBI question about expected changes in the volume of output: the balance of firms expecting an increase in the next few months is markedly lower.

Phase III: tax and the sinking industrial wage

BY COLIN JONES

IF THE social contract falls apart in the attempt to negotiate a third year of voluntary pay restraint, the Government will probably need to look no further for one of the principal causes than its own past complacency towards the greatly increased tax burden which it has placed upon industrial workers at all levels of earnings. Before Mr. Denis Healey became Chancellor of the Exchequer three years ago, he talked with relish of making the rich howl with anguish. The howls are now coming from the industrial worker. The groundswell of opinion against another year of pay restraint which we have seen in the last few weeks is probably as much a rebellion against the way in which real living standards have already been eroded by taxation as a revolt against the anomalies and rigidities bred by the first two phases of the Government-TUC pay policy.

The contribution which income tax has made to the decline in living standards is brought out clearly in the chart. It records the changes at quarterly intervals since 1972 in the real value, before and after tax (and national insurance contributions), of the average earnings of full-time adult male manual workers in manufacturing industry. The chart indicates that average gross pay has moved roughly in step with retail prices during the past three years, irrespective of the going rate of inflation and irrespective, too, of the nature—or, indeed, the existence—of a formal pay policy. It is only now, with inflation running at about 15 per cent. a year and the growth in industrial earnings expected to slow to about 7 per cent., that the real value of average gross pay is falling.

In contrast, the real value of take-home pay, after tax and national insurance, has been declining more or less continuously since late 1973. Until now it has not been the quadrupling of oil prices or inflation generally which has eroded the living standards of the industrial worker, but Mr. Healey's reliance on fiscal drag and his increase in the standard rate of income tax to boost the Government's revenues.

The chart has been drawn up on the assumption that the average industrial earner is married and has two children under 11. However, the experience of the single person, the childless couple, or the larger family earning the industrial average has been broadly similar. The lower paid worker—earning, say, two-thirds of the industrial average (and only 10 per cent. of all full-time men aged 21 or over earn two-thirds, or less, of the average)—has fared as badly as the average earner.

Further up the scale the position is now widely recognised as having been even worse. A married man with two children under 11 who was earning twice the industrial average in 1972-73 and who has received the maximum increases permitted under successive pay policies since then, plus the same percentage increase as the average industrial worker in the 1974-75 "free-for-all," would have seen his net take-home pay decline in real terms by 30 per cent. since October, 1973.

Britain was already a high tax country when the Labour Government took over in March, 1974. True, tax thresholds were no lower in relation to average industrial earnings than in one or two other West European countries; but the marginal rate of tax paid by the person crossing the threshold was substantially greater than in any other industrial nation. Since then the marginal rate of tax paid at the threshold has been raised from 30 per cent. to 35 per cent. (or, including national insurance contributions, from 32¾ per cent. to 40¾ per cent.) while the threshold has been allowed to decline from the equivalent of 47 per cent. of average industrial earnings to 42 per cent. for the married man with two children under 11 and from 26 per cent. to 20 per cent. for the single person.

Hardly anyone—certainly less than a tenth of one per cent. of all full-time employees in all sectors of the economy—earns less than to-day's tax thresholds. Yet when the tax allowance for children is reduced in April as the first step in the switch from tax allowances and family allowances to the new child benefit scheme, the tax threshold for the married man with two children under 11 will fall to 38 per cent. of average industrial earnings (subject to whatever other changes Mr. Healey may make in his Budget).

All the speculation about the nature of the income tax "reductions" which Mr. Healey might be able to offer as sweeteners for another year of voluntary pay restraint needs to be seen in this context. There is, for example, not the least possibility of Mr. Healey (or for that matter any Conservative Chancellor) eliminating in one Budget the increased bite which income tax has taken out of everyone's pay packets since March, 1974. To restore tax thresholds to their 1973-74 real value and the standard rate of tax to 30 per cent. would now "cost" the Exchequer some £5bn. to £5½bn. of revenue in a full year.

There is not even any immediate possibility of raising tax thresholds by amounts which would be sufficient to avoid the large and growing overlap between the systems of income tax and social security — an overlap which has resulted in the working poor being taxed, and taxed relatively heavily, to help pay for the benefits of the non-working poor.

Three years ago a childless couple would have received £14.48 a week in supplementary benefit (including an average rent addition) and they would have started to pay tax, if the husband was employed, once he earned more than £14.91 a week. To-day they would be entitled to £27.92 in supplementary benefit (including rent) but would pay tax on earnings from employment exceeding only £20.87 a week.

How much Mr. Healey could afford to "give away" in his Budget probably not even he knows for certain at the moment. The pre-Budget forecasts are still being worked out. But, with next year's public sector borrowing requirement limited by the Government's undertaking to the IMF, the sum is likely to be relatively modest. The best outsider's guess at the moment would seem to be up to about £1bn. This figure could of course be increased by further reductions in public spending or by extra taxes elsewhere. For example, each percentage point increase in the present rates of value-added tax would yield roughly an extra £500m. a year.

Whatever the final sum, it is unlikely to go very far towards preserving real value of net take-home pay in 1977-78. One widely canvassed possibility is the restoration of a reduced rate of tax on the first tranche of taxable income—say, 25 per cent. on the first £500. This would cost the revenue somewhat more than £1bn. in a full year and reduce the tax-bite for every taxpayer by the princely sum of 96p a week—adding, as can be seen from the table, about 1½ per cent. to the net pay of the average earner.

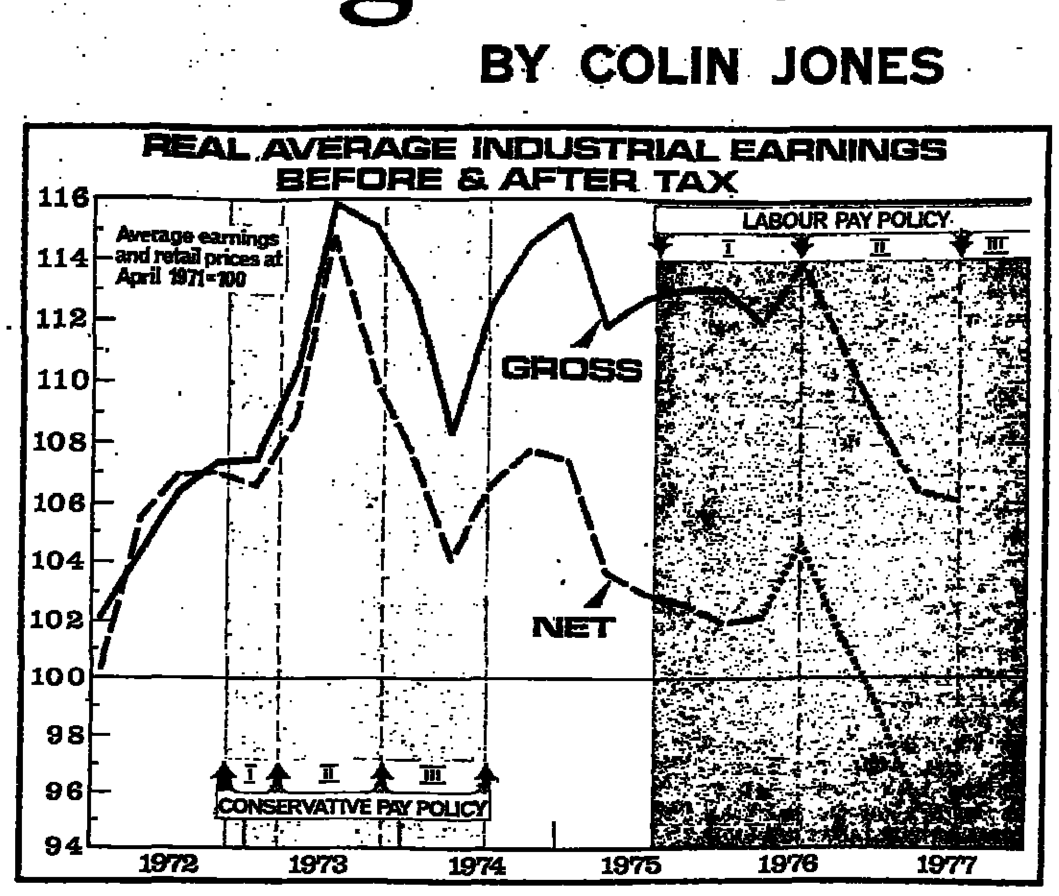
Alternatively (or, perhaps, additionally) Mr. Healey could devote £1bn. to an increase in personal allowances—say, an increase of £140 for the married couple and, if he wished to continue the process of adjusting the ratio between the single person's and married person's allowance, an increase of £65 for the single person. This would not be a full 15 per cent. revaluation, but it would be enough to offset the nominal reduction in tax thresholds for the family man when child benefits start in April. It would be worth an extra 94p a week for the married couple paying the 35 per cent. standard rate and rather more for those paying a higher marginal rate—or say, an extra 2¼-2½ per cent. net for the low-paid, 1¾ per cent. for the average earner, and an extra 1¼ per cent. for those earning double or three times the industrial average (£7,770 and £11,660 a year respectively).

A third possibility, which has also been mentioned, can be discounted straightaway. This would be the restoration of tax relief on national insurance contributions. It would be administratively complex and therefore costly. Because of the structure of income tax, it would benefit the higher paid more than the average earner and the low-paid worker. And broadly the same effect—in terms of revenue foregone and the size of the relief to taxpayers at all income levels—could be achieved by a reduction in the standard rate of tax. Full relief for national insurance contributions, for example, would be broadly tantamount to a cut of 2 per cent. in the present 35 per cent. standard rate.

If Mr. Healey wants to help the manager, as he has more than half hinted, then the more straightforward—and as the table shows—much cheaper way would be to raise the threshold at which the higher rates of tax are levied. An increase of £500 all the way up the scale, for example, would "cost" the revenue somewhat over £100m. a year and add about 1 per cent. to the net pay of the family man earning twice the industrial average.

The difference some, or all, of these tax reliefs would make to the net value of different percentage increases in gross pay during Phase III can be calculated from the table. The CBI's suggestion of a 6 per cent. limit—a 3 per cent. norm, plus 3 per cent. for wage drift—has been hotly turned down by the TUC. It would be worth just under an extra 5 per cent. net for the average earner and rather less for both the low-paid and the higher-paid. But if Mr. Healey were to see his way to £2½bn. worth of tax cuts—£1bn. for increased personal allowances, £1bn. plus for a new reduced rate, and £100m. plus for a £500 increase in all higher rate thresholds—then a 6 per cent. increase in gross pay and these tax reductions would be worth an extra 9½ per cent. net for the family man earning two-thirds the industrial average, an extra 8½-8¾ per cent. net for the average earner, and up to an extra 6-7 per cent. net further up the scale.

The chances of inflation moderating to these sort of figures by 1978 are at best uncertain. So, too, are the prospects of Mr. Healey being able to "afford" as much as £2½bn. in tax reliefs. Furthermore, the TUC has again manoeuvred the Chancellor into the position of unveiling his Budget before they begin bargaining in earnest about pay policy, and this time they are likely to take less kindly to conditional tax concessions. The Phase III negotiations could come unstuck for all sorts of reasons—the need to provide flexibility, to restore differentials, to facilitate improved retirement provisions or to start consolidating the Phase I and II increases. But if the negotiations do fail, some blame should be placed on the way in which the Government has been raiding the real wage of the industrial worker in order to sustain and improve what it terms the social wage in public spending.



OPTIONS FOR PHASE III

Increase in Take-Home Pay*

		Low Paid				Higher Paid			
	Est. cost £m.	⅔ Average earnings £ a wk.	%	Average earner £ a wk.	%	Average earnings x 2 £ a wk.	%	Average earnings x 3 £ a wk.	%
A. Lower Taxes									
Increase in Personal Allowances									
Married couple +£140	810	0.94	2.4	0.94	1.7	1.21	1.2	1.72	1.3
Single person +£65	190	0.44	1.1	0.44	0.8	0.62	0.7	0.81	0.7
New 25% Reduced Rate on first £500 of taxable income	1,000-1,250	0.96	2.4	0.96	1.8	0.96	1.0	0.96	0.7
£500 increase in all higher rate thresholds	100 plus	—	—	—	—	0.96	1.0	2.30	1.7
B. Higher Pay									
Increase in gross pay of:—									
6%		1.77	4.5	2.65	4.9	4.65	4.7	4.71	3.6
8%		2.37	6.0	3.55	6.5	6.15	6.2	6.30	4.8
10%		2.95	7.5	4.42	8.2	7.64	7.7	7.85	5.9

* Assuming (i) average earnings of £74.70 a week for adult male manual worker in manufacturing industry at July 1977; (ii) married couple with 2 children under 11 (except where otherwise stated).

MEN AND MATTERS

Beflagged again

David Thomas, marketing manager of the George Tutill company which has been flag-making since the middle of the last century, works in a much misunderstood business, and he cheerily rattles off, then demolishes, a string of misconceptions about flags.

For a start (and I am sure this is something everyone else but me learned about in their youth) the Union Jack is mostly misnamed; it can only be given the suffix when the properly named Union Flag is flown from the jackstaff at the front of one of Her Majesty's vessels.

Then there is the muddled question of flying flags at half mast. That *doesn't* mean half way up the mast, says Thomas: the idea is to position, say, a four-foot-deep flag four feet from the top of the pole. And only the Queen can order half-mast flying.

Thomas adds that there are no restrictions here on flying national or other flags, but planning permission is generally needed to put up a staff (movable) or pole (fixed).

Obviously, the more flag wavers the better as far as Tutill and the eight other British flagmaking companies are concerned, though Britons on the whole are not nearly so keen on flags as other Europeans. However, the Tutill group, based in Chesham, Buckinghamshire, has been gratified at the occasional peaks in demand. The Silver Jubilee should be a good excuse for flags—Tutill has just unfurled its own line in commercial jubilee flags "fabricated from a rich gold nylon material" —and previous demonstrations of national enthusiasm included the Backing Britain campaign and a little oddly, the three-day week.

Thomas has often noticed that times of union militancy bring on a rash of flag-buying. That is somewhat ironic for his family-owned firm, as the original George Tutill started it mainly to produce trade union banners, which are still made.

Quite apart from the many tricky aspects to the subject of flying flags, the future is distinctly uncertain. Post-devolution, Wales and Scotland will presumably insist on separate national flag identities, and the old St. George's Cross should become much more common in England. At least there will be fewer of those tedious protests about flying the Union Flag upside down.

Welsh woe

Apart from independent flag-flying, another sign of increased national pride is the growth of interest in local language. The official backing for Welsh is evident in road signs and in education syllabuses (there is even a Maths degree course in Welsh), but the commercial world has been somewhat less enthused.

One of the most recent entrants to the bureaucratic tangle of bilingual writing paper and vehicle signs is the British Transport Docks Board which looks after five ports along the South Wales coast from Swansea to Newport. It has bowed to pressure from the Welsh Language Society to get it to mend its ways. Having discovered that the Government positively encourages State concerns to put up the facade of bilingualism, it is now looking for a way of printing its new name at the head of letters without turning the paper sideways, and is about to decorate all its vehicles.

It is not the first time the BTDB name has appeared in Welsh. Near its £21m. ore terminal developed for the British Steel Corporation at Port Talbot stands a commemorative sun-dial made from stainless steel. Beneath it is written "Bwrdd Trafnidiaeth Dociau Prydeinig" which unfortunately translates as "British Docks Transport Board."

"On the other hand it's ideal training for their entry into the labour market."

Ubiquitous F. W. Woolworth has some bilingual signs in its West Wales and North Wales stores, but they are relatively few. According to Mike Shirlock, national sales and advertising manager: "It's not commercially possible or desirable to go bilingual."

But then he's been soured by experience. He once looked after a group of 18 stores in Wales. "I wanted to make a name for myself and went around wishing everyone 'Happy Christmas' and 'Happy New Year' in Welsh, but nobody understood me."

The chain's main Cardiff store has so far managed to stay off the bandwagon. Frank Jacobsen, the manager, says: "We are rather cosmopolitan down here. We've had no Welsh trouble, except when the rugby crowds come down."

Irish catch

Having decided to press on with its decision to impose unilaterally a 50-mile fishing limit in the teeth of considerable opposition in Brussels the Irish Government is now working out exactly how it is going to police its expanded seas.

The problem was vividly illustrated last September when the pride of Ireland's four-vessel fishery protection fleet, the 850 d.w.t. minesweeper Grainne, "arrested" the 2,700 d.w.t. Russian trawler Belmorye. The worry was that one false move by the Soviet quarry could have scuppered its captor.

The Grainne successfully landed its catch but the David and Goliath dimensions of the incident led the then Defence Minister, Paddy Donegan, to complain that the fishery protection fleet was not even sufficient to police the old 12 mile limit.

Donegan has since become Fisheries Minister and rather ironically it was his task to stand up in Brussels yesterday and stress Ireland's determination to bar some of the larger EEC trawlers from "certain areas" up to 100 miles from Ireland's shores. To show they mean business several cabinet ministers have shown interest in a "revolutionary" new Japanese seaplane the Mitsubishi U.S. 5., a twin-cannoned amphibious turboprop which can land despite 15-foot waves. Originally there was confidence in Dublin that up to 75 per cent. of its $20m. cost could be financed from EEC grants. But that was before Donegan claimed Ireland's extra limits in Brussels.

Duck

My "beware" series lives on. In the East Anglian fen country is a 19th-century sign warning "Our keepers now have orders to shoot poachers on sight and question them afterwards, if practicable."

Observer

FINANCIAL TIMES SURVEY
Wednesday February 16 1977

London Metal Exchange

The London Metal Exchange Centennial year has started on a buoyant note with price increases for all five metals traded, including record levels for lead and tin. But the outlook is clouded with uncertainty about the world's economic state and the threat of shortages because of lack of investment in new mines.

Clouds over the market

By John Edwards
Commodities Editor

THE OUTLOOK for future supplies and prices of non-ferrous metals is distinctly clouded in the year in which the London Metal Exchange celebrates its centennial. This could probably have been said at any time during the 100 years of the Exchange's existence — so unpredictable has been the behaviour of metal prices. But the fact remains that in recent years the break up of the Bretton Woods monetary system, fluctuating international exchange rates, and the acceleration in the inflation rate in the industrialised world, have created a new underlying uncertainty in all commodity markets.

This uncertainty is intensified in the case of metals by growing concern about the depletion of the world's non-renewable resources as demand increases year by year. The supply crisis focused attention on the problem of future supplies of vital raw materials for industry. In fact it is now generally accepted, despite the gloomy Malthusian forecasts by the Club of Rome, that the earth's crust does contain sufficient supplies of most raw materials, with the possible exception of oil, to last for the foreseeable future.

It should also be remembered that many metals do not disappear once taken out of the ground and used by industry, but can be reclaimed in varying quantities for further use.

The big problem with the supply of primary metals, however, is the increasing difficulty and cost of obtaining them in the future, compared with the relatively easy deposits exploited in the past. The depth one has to dig, the grade of deposits worked and the difficulty of exploiting reserves, particularly from under the sea, all have an effect on the cost of the product. But as the British-North American Research Association warned in a special report recently reviewing mineral development in the 1980s, "the system by which capital has hitherto been found for mineral development has broken down."

The steep increase in exploration and production costs as a result of inflation has raised the amount of investment required for developing new resources to massive amounts, often beyond the resources of the mining groups which have previously managed to keep the world supplied with sufficient raw materials. At the same time the mining groups have been further handicapped by political developments which have discouraged investment in the third world, where the bulk of the world's natural resources are now concentrated. According to the British-North American Research report "hundreds of millions of dollars of capital that might have flowed to the Third World has been invested in developing alternative supplies in areas where the financial outcome is more predictable and the profitability more assured."

In other words there is a great reluctance to invest the increasingly large sums needed for metal mining projects in countries where nationalisation, crippling taxes or other imposts might make the investment worthless or non-profitable after a short period. This is a problem that will have to be solved urgently if the world is to have sufficient non-ferrous metal supplies in the 1980s, since the gap between exploration and actual mine production is a long period of five to seven years or more. There are two main stumbling blocks. One, triggered off by the oil crisis, is the fear that producers of vital raw materials might decide to try to follow the example set by the oil producing countries and form supply cartels that could hold the consumers to ransom, possibly for political motives. It makes sense in that context for the industrialised countries to develop their own resources or develop substitutes, where possible to reduce their vulnerability, even if this is not a sensible policy from overall world view.

The initial scare that a lot of mini-Opecs might spring up has lessened as further studies showed that cartels for other raw materials, with greater known reserves, are unlikely to be effective in the long term and certainly not during periods of industrial depression. However, there is also little doubt that producer cartels could play a significant role during times of shortage and industrial boom. Hence the move by consumer countries to take a much more sympathetic attitude towards efforts by the U.N. Conference on Trade and Development, amongst others, to encourage commodity pacts between producers and consumers to seek price stabilisation.

This leads to the second stumbling block: the need for price levels sufficient to encourage the investment required to ensure future supplies.

Not only do prices have to be high enough but also have to offer the prospect of remaining at a sufficiently high level to justify the investment. And it is here that the future role of the London Metal Exchange may be at risk. Demands by producers, particularly those in developing countries, for a more stable guaranteed return for the natural resources they supply to the rest of the world, are receiving a much more positive response from consumers worried about the future supply situation. It is recognised that the days of obtaining raw materials on the cheap are numbered, if not gone already. The main complication is that the political repercussions of a swing in power from the industrialised world to the primary producers has made it that much more difficult to overcome the considerable practical problems of price stabilisation.

Example

A prime example is provided by copper, where producers and consumers negotiating directly appeared to be making good progress, but have since become bogged down by the political squabble over Unctad's elaborate plan for an integrated commodity programme and multi-buffer stock fund. In the International Tin Agreement too, increasing political arguments have handicapped the previous smooth working of the debate between consumers and producers.

Nevertheless it seems inevitable that eventually some consensus will have to emerge on price stabilisation, reducing the importance of the London Metal Exchange, which at present virtually sets the prices of copper, lead and tin worldwide outside North America, and which also has an important influence on the trend in lead and silver prices.

The success of the LME pricing system over the years, which has resisted all kinds of alternative attempts to control prices, is that its prices reflect all kinds of influences, not just the cost of production. The "real" price of a metal is what the buyer is prepared to pay for it, this has been based on a whole variety of factors, including eventually the availability of supplies regulated by the cost of production. But in the modern political world this might be a difficult argument to sustain, especially if the producer achieves a more dominant role, as seems likely.

This means that the Metal Exchange may well have radically to change the formula that has served it so well over the past century, since it started as one of the "coffee shops" in the City of London.

Already there is increasing criticism about the volume of speculation influencing Metal Exchange prices in recent years as a result of the big inflow of funds into commodity markets seeking protection from the ravages of inflation and currency changes on "paper" money. The Bank of England sounded a warning in 1976 when it forced the temporary suspension of non-trade business in the zinc market because of too great an element of speculation being shown up in the careful, detailed, returns it now keeps on commodity trading. But too restrictive domestic curbs might deal a fatal blow to the LME's role as an international market. Pressure for a "clearing house" system to replace the principals' contract currently used, because of fears about some possible economic disaster undermining the financial base of the market, could also lead to a fundamental change in the future for the Exchange.

The failure to start any new markets on the Metal Exchange, since the silver contract was introduced in 1968 does not look too promising for the future, especially with several of the current metals traded likely to be subject to more outside price control.

But the Exchange has shown over the years excellent survival powers and ability to adapt in accordance with changing circumstances. Membership of the Exchange has been diversified considerably over recent years, lessening the previous dominance of one or two members with strong producer interests. International representation has spread considerably so that a much wider range of countries is directly involved in ring-dealing. At the same time the type of company represented has also broadened.

Naturally because of the increased sums involved, the member companies have tended to become larger and larger groups with the smaller, independents, being forced out. Mr. Ian Foster, deputy chairman, in a recent speech warned that the reduction in independent elements on the Exchange could be unhealthy. He also underlined the necessity to keep the market "mix" just right by having the right proportion of participation by banks, investment organisations and speculators.

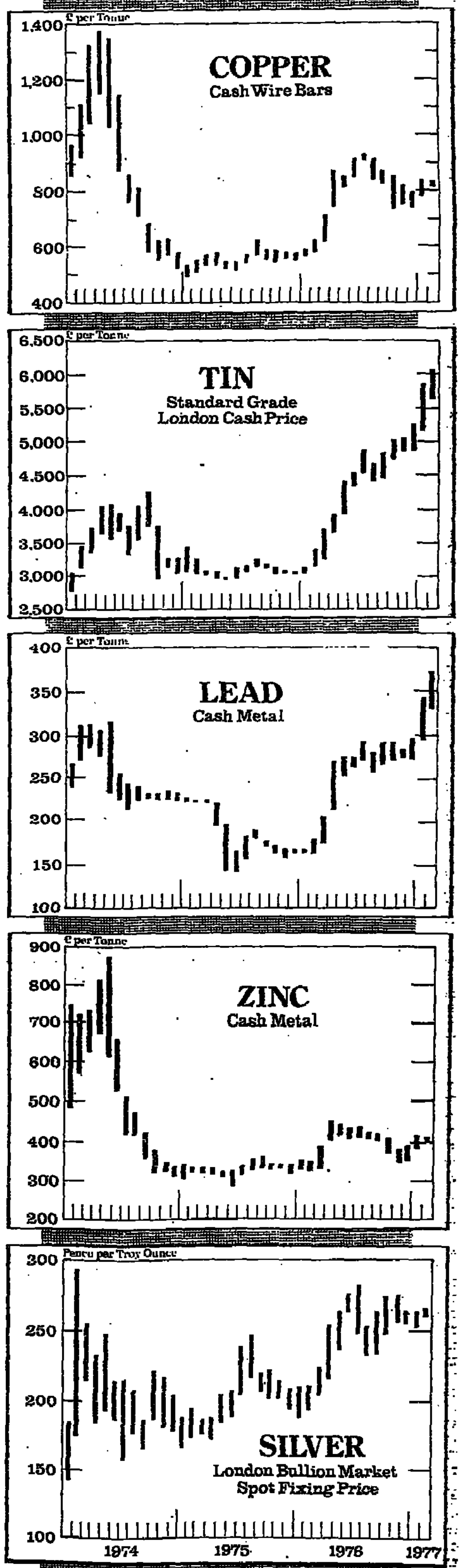
A new element in the market has been the growth of so-called "long term" investment in metals, as well as an increasing awareness by banks and financial institutions in Britain and abroad of how to use the financial opportunities presented by a contango—when the cash price is at a discount to the three months quotation depending on the current rate of interest.

Although strictly non-trade business, the extra funds flowing into the Exchange have benefited both producers and consumers by financing the huge surplus stocks that built up at far lower cost to the trade than was the case, for example, with aluminium where producers were hit by crippling stock carrying losses.

In this role alone, the Metal Exchange has proved that it is far more than merely an historical relic of the City of London.

The trading ring at the London Metal Exchange.

LONDON METAL EXCHANGE MARKETS
(Monthly 'Highs' & 'Lows')



Fortunes of the five metals traded

COPPER IS by far the most important market of the five metals traded on the London Metal Exchange. It attracts most interest, reflecting not only the supply and demand, but also acting as a general indicator of industrial and economic well-being worldwide.

In recent years the huge flow of speculative funds has given the New York copper market (Comex) the lead in terms of turnover. But the LME market is acknowledged as the major influence internationally, since its prices are used as the basis for direct supply contracts between producers and consumers all over the world except North America, where producers have their own fixed price system).

The London Metal Exchange copper market is also of great importance to those developing countries, which provide the bulk of the world's copper exports and rely on them as their main, often virtually sole, source of foreign exchange earnings. Hence copper is one of the ten "core" commodities in which UNCTAD is seeking to arrange its international price stabilisation agreements. Third World producers have also formed the Council of Copper Exporting Countries (Cipec) which for many years has been seeking methods of boosting prices to more "realistic" levels.

So far these efforts to control prices have failed, like past attempts when the combination of production throughout the world and the large volume of secondary scrap supplies have proved too difficult to regulate.

At present, because high prices in the late 1960s encouraged production, and there has been a low level of demand in the past two years, surplus stocks of copper worldwide have built up to record amounts. In the London Metal Exchange warehouses alone there are over 600,000 tonnes, which compares with a previous peak of 190,000 tonnes in December 1972 and around only 10,000 tonnes during the early months of 1974 when prices reached their highest ever level of £1,400 a tonne.

Although present prices look high historically, they also include the sharp rise in inflation during recent years and the steep fall in the value of sterling: in West Germany, for example, prices are at an historically low level.

Surplus

As a result it is estimated that present prices are below the cost of production for at least 50 per cent. of the world's copper producing mines. Current surplus stocks, and the already planned increases in output, are expected to ensure adequate supplies of copper for the next few years. But with little investment attracted at a time when the cost of increasing production has risen enormously, an acute scarcity of supplies is expected to develop in the 1980s.

The long-term prospects, therefore, are for much higher prices, especially as substitution from aluminium is likely to be at a much lower ebb than in the past because of the production and price problems which also face bauxite and aluminium producers, in producing a metal requiring a high energy input.

For the short-term the trend in copper prices is likely to be largely influenced by whether or not there is a sustained strike by U.S. non-ferrous metal workers, when their three-year labour contracts come up for renewal in the summer months. A worsening situation in Southern Africa, another big copper producing area—could have an important effect. So could possible moves by the U.S. to replenish its exhausted strategic stockpile of copper.

Tin prices are currently at record levels in both London and Malaysia the main market for physical supplies. Although Malaysia is planning to start a tin futures market to provide hedging facilities, currently only available in London, the LME is likely to retain its importance as the main pricing market for the industrialised world. Over the past 20 years tin prices have been subject to control within a "floor" and "ceiling" range set by the International Tin Agreement between producing and consuming countries.

A buffer stock, backed by production quotas when required, has enabled the "floor" to be defended successfully, with only one brief exception. But so far no means has been found of preventing prices rising above the "ceiling" in times of scarcity—as now.

The remarkable turnround in the tin market during the past two years from a position where heavy surpluses depressed prices to the present shortage which is forcing prices higher and higher, is attributed not only to greater demand but also to the underlying basic problem that few new deposits of tin are being discovered, while the cost of exploiting known lower-grade reserves has risen fast.

In Malaysia, the world's biggest producer of tin, the problem has been further compounded by shortage of available land. Moves to exploit tin reserves offshore have made only slow progress.

Some relief for the short-term shortage of supplies may come from releases by the U.S. strategic stockpile, which still holds over 200,000 tonnes of tin — equal to the world's annual consumption figure. However, stockpile releases, which have filled supply shortfalls several times in the past, are likely to be the subject of greater debate in the future in view of the diminishing amount held and their importance to the U.S. which holds no known reserves of tin. Prices are, therefore, expected to continue rising although the point is fast approaching when substitution or replacement will reduce the slow growth in tin consumption even more.

Lead prices are at record levels in the London Metal Exchange at present, inflated by the fall in the value of sterling. A large proportion of lead supplies comes from scrap sources — something like 60 per cent. of U.K. total lead supplies. Consequently production fell during the industrial recession. At the same time demand for lead is kept steadily, if not spectacularly, growing by the increasing use of batteries — its main industrial use. Moves to reduce, and even eliminate the use of lead compounds in petrol, have been greatly slowed down by the oil crisis and the priority given to making the most of petrol supplies.

Unexpected extra demand from Eastern Europe, where a big Soviet Union smelter is believed to have suffered major production shortfalls that have had to be made up by purchases from the Western world, has reduced surplus stocks of lead in the LME warehouses considerably and pushed up prices without the help of the support buying by producers which has been used in the past to maintain market values.

This demand from Eastern Europe, and a switch to "maintenance-free" batteries in the U.S. involving the use of more lead in the short term but less in the long term, is expected to hold the market firm for some time yet. A strike by U.S. metal workers in the summer could also hit available supplies.

Values

Zinc values are currently in the doldrums as a result of continued poor demand building up sizeable surpluses in the LME warehouses and in producers' hands. The European producers' price, at which the bulk of supplies used to be sold under direct contracts between producers and consumers, has been disrupted by heavy discounting and the availability of much cheaper supplies from other sources, notably the LME market.

Threats of anti-trust legislation from the U.S. have also made producers, with American connections or sales, increasingly wary about defending the producer price system.

A compromise has been reached whereby individual producers buy cheap price supplies from the LME market, the bulk of which come from Eastern European sources or consumers with surplus stocks, to provide their customers competitively by "mixing" the LME and producer prices. This has, however, entailed cutting back production by between 30 to 40 per cent. of available capacity.

The high prices and shortage of supplies of 1973-74 caused a decline in zinc demand that is taking some time to recover, especially while steel sales remain sluggish. But in the longer term, prospects for expanding production are far from favourable, once present plans are fulfilled, and a move to higher price levels is expected, particularly as the cost of substitute materials like aluminium and plastics are forecast to increase substantially, posing a further blockage to new production.

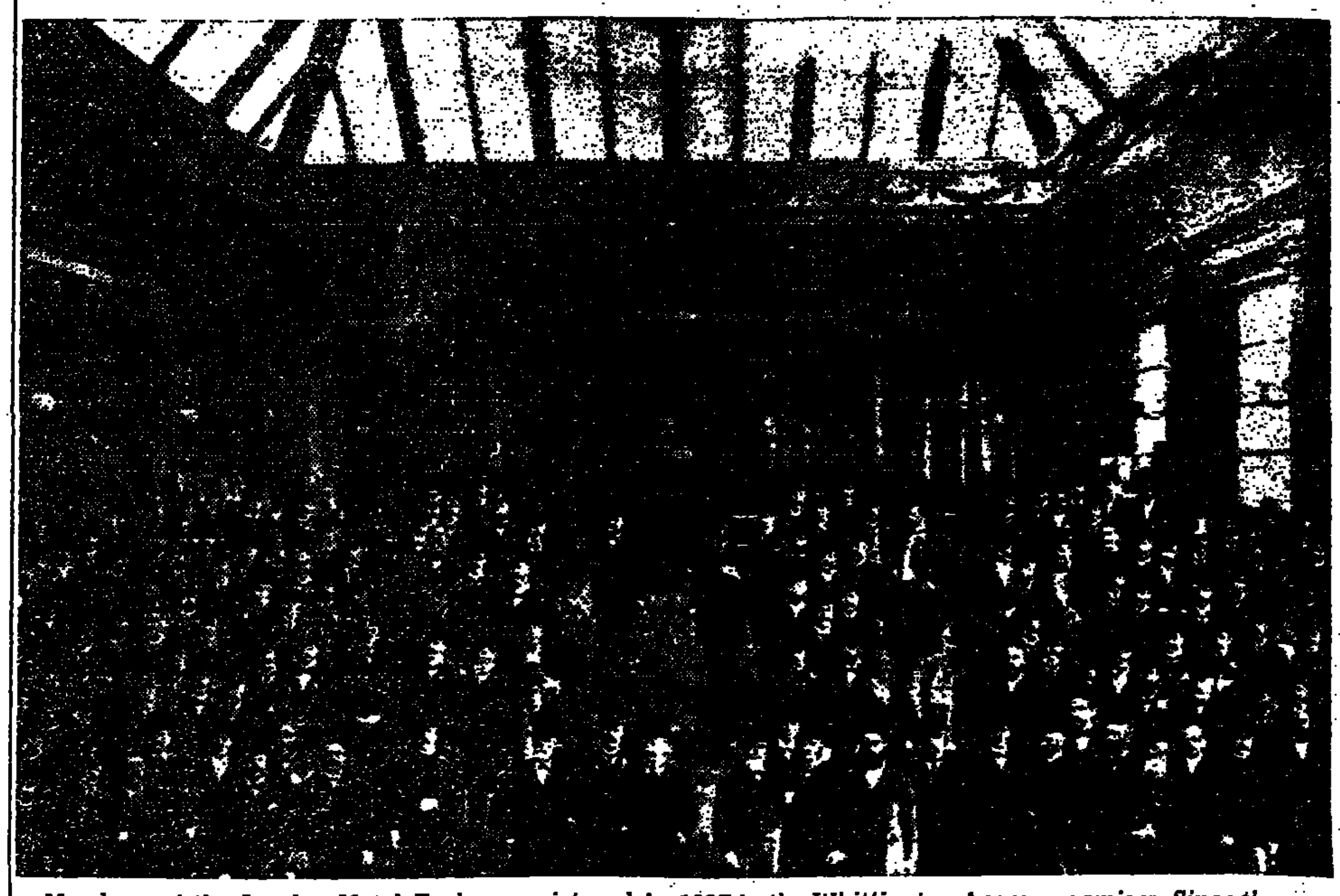
Silver values have risen steeply, reflecting the fall in the value of sterling and continued buying interest from speculative sources seeking protection against inflation and currency changes in this metal with its strong historic monetary links.

Industrial demand has been hit by the general economic recession, but continues to exceed new production by a large amount annually. Even though there are ample stocks of silver above the ground to fill the production shortfall for the foreseeable future, these supplies are not generally forthcoming unless the price is sufficiently attractive to persuade the holders to sell.

The LME silver market, started in 1968, is dominated by speculators like the other "open" markets in New York and Chicago, as well as the bullion market in London. Price trends, therefore, depend more on views about inflation, the rise or fall in grain markets, stock and shares and gold than any basic supply-demand developments.

J.E.

LONDON METAL EXCHANGE II



Members of the London Metal Exchange pictured in 1897 in the Whittington Avenue premises. Since then a "false" ceiling has been installed, partly to prevent rain coming through which on occasions forced traders to put up umbrellas when trading to avoid getting soaked.

The 100 years since Cowper Court

IT IS HARD to trace a precise record of what must have been the many and sometimes fairly hectic changes and surges in the development of the body we now know and recognise as the London Metal Exchange. But there are records of some of the "key" developments, and from these it is possible to pinpoint at least some of the more significant steps in its evolution.

London itself emerged as a centre of international commerce with the establishment of a very efficient financial apparatus. The merchant banks, the classic Bill on London which smoothed the path of merchant and importer, and the growth of the shipping and insurance markets all played their part. Commodity markets naturally gravitated there too, and the metal merchants were known to have met regularly under the roof of Gresham's rebuilt Royal Exchange.

Coffee houses seem to have a special place of their own in the evolution of the London markets. Along with Lloyd's and Garroways the Jerusalem in Cowper Court saw the origins of two such markets—the Baltic and the Metal Exchange.

But to the metal merchants a less public and more specialised rendezvous was becoming a necessity. For a while they met in the newly opened Lombard Exchange and Newsroom. But the Lombard too was made use of by brokers in other trades and to this extent failed to give the metal merchants all the advantages of a home of their own.

Decision

It was partly to meet this need as well as to establish their market on a more formal basis under set rules of conduct that they took the decision to set up their own company. This would be at once their local authority and responsible for their own premises. The London Metal Exchange Company was duly incorporated in the latter part of 1876. It had its headquarters in Lombard Court off Gracechurch Street, and it held its first meeting on December 19 in that year. The first meeting of the merchants and brokers under the aegis of the new company took place in January, 1877, and so the LME was born.

As happens from time to time even in the most staid organisations, there came a moment when the body of the members found themselves at odds with their Board of directors. The disagreement was in the main over the way in which the members felt that the Board had taken to itself responsibility for publishing and reporting the daily prices; it was not considered that the Board was closely enough in touch with the market for its members to be properly qualified for this task.

In consequence of this and other matters in issue, the members of the exchange met in January 1881 and resolved to set up a Committee of Subscribers which would be elected annually on a popular vote and which would be responsible for forwarding the interests of the membership at large. The first election was duly held in March of that year and the first Committee assumed office on April 25. Since then, the tradition of Committee elections in March and the new body taking office on April 25 has always been observed.

The Committee now functions as the Executive of the LME with responsibility for its discipline and operations as well as for the daily price quotations. The Board remains responsible for finance and general policy in addition to the election of applicants for membership.

With the opportunity to obtain new premises, the original company was absorbed into a newly formed entity, having an initial capital of £10,000, which was to secure the premises and continue to function as their proprietor. So in 1882 the Metal Market and Exchange Company brought the London Metal Exchange to Whittington Avenue, where it has remained from that day to this.

The only interruptions of this continuity were the unavoidable closures during both world wars. Dealings in tin were recommenced in November, 1949, and other metals follows, with dealings in copper reintroduced in 1953.

How did it all work? This was a merchants' market and those with "something to do" at first merely used the exchange as a convenient place for meeting others who might also have something to do, and for making a bargain. The true open outcry market was still some way off.

The exchange had by this time consolidated its authority as the source of representative prices for the metals traded there and in so doing it had set certain times of the day for official trading. The periods were short (from 12.30 to 13.15 and from 16.00 to 16.30) and the patter of concentrated official trading in the room after a morning of dealer-to-dealer trading in preparation was established as early in the LME's history as this.

Next came the happy thought of one of the members who traded in copper and tin. These metals were in many senses the founders of the whole LME dealing system, since they were the first to be traded in appreciable quantities, as well as being the best suited to some form of standard contract. Here, it was possible to trade in defined lots of metal of a recognised quality at a given location; in short, to conduct true terminal market business.

It is said that this member took a piece of chalk from his pocket and drew a ring on the floor of the room. All took their places around it. Now it was possible for a true open outcry market to be conducted with bids and offers called to the Ring, the whole proceeding being timed by an official with a watch and a bell.

Since then, and apart from the introduction of the now familiar circular benches, very little has changed outwardly as far as Ring trading is concerned. With the introduction to Ring dealings of new metals (first lead, then zinc and latterly silver) and the splitting of the old standard copper contract in 1963, the trading times have been expanded. But the afternoon market continues to be officially "unofficial" and if the secretary with his watch and handbell has been replaced by electronic clocks then the hubbub of Ring dealings has continued its staccato way virtually unaltered.

Permission to deal in the Ring is granted by the Board and the Committee jointly to those who are already subscribers. Largely because of its steadfast adherence to the concept of a principals' contract with each taking full financial liability for his obligations made in the market, the LME has perforce to insist on a very high degree of financial "muscle" on the part of its Ring members. As volume of business has grown, and as prices overall have increased, so inevitably must these requirements be reviewed constantly to contain overtrading and preclude as far as is feasible the likelihood of one member putting his fellows at undue risk.

Whether this philosophy (for it really amounts to that) will continue unchanged is outside the scope of this article. What is historically certain is that it has survived from the earliest and most tentative days of trading on the LME.

Contract

The ABC of a terminal market is that it is a forum where futures are traded but where eventual delivery of the goods is also possible. This entails the amalgamation of the requirements for each into a contract providing for a standard lot of material of as nearly as possible standard quality to be bought and sold forward—delivery also to be implicit on standard terms.

At the outset there were two contracts—for Chile bar copper and for Straits tin. The maximum forward trading period was set early on at three months; this being the average voyage time from Chile via the Horn and from the Malay Straits via the Cape of Good Hope. This period still obtains, and it is amusing to note that with all the refinements of technology the voyage time to-day is not all that different.

Copper and tin proved not too difficult to pin down as to quality. Once instituted, in 1888, the standard copper contract survived with upward changes in purity requirements right up to 1963. In that year three contracts were substituted, of which two—electro wirebars and cathodes—are still used. The third, for fire-refined copper, ceased to be traded in the Ring in 1968, though it continues to be priceable at a set discount below electro.

The tin contract proved just as durable—and this in a metal more than usually subject to political and other vicissitudes. After crystallising as such in 1912, the standard contract remained largely unaltered—notwithstanding the disturbing effects of such outside influences as stockpile policies, some made for economic and others for strategic reasons. In 1974 the standard contract was joined by a high-grade contract for tin assaying not less than 99.85 per cent., and to date the two are traded concurrently in the same Ring.

Of lead and zinc the latter proved the more difficult to pin down as to quality, though both have for some years been successfully traded. Zinc in many ways has problems of its own in that a reasonably generous purity requirement (98 per cent zinc) has the odd side-effect of admitting as good LME deliveries various grades which, although of higher purity can in fact be less attractive to users with certain applications in mind. It could well be that some form of high-grade zinc contract would be a welcome addition to the market's range.

For some time after their introduction to the market, the lead and the zinc contracts followed different paths from those of copper and tin, in that they were based not on delivery in warehouse, but ex-ship. Furthermore, they did not originally permit trading in dates, half-monthly delivery periods being decreed.

Both markets have since those days come into line with the overall LME concept of an in-warehouse contract prompt any market day up to three months forward. Delivery of course must be at a location selected by the seller; without this protection sellers would find themselves forced to carry stocks of metal in each approved warehouse against the whim of any buyer, and the added cost to the whole market operation is easily seen.

The basic problem with the LME contracts—aside from "which warehouse"—must remain that of providing a market broad enough and with sufficient "chips" as to be impervious to squeezing of available supplies. At the same time and within the same parameters the market must allow for a buyer or a seller to be sure that the actual physical grade of the material in issue is such as to satisfy the needs of an ever more fastidious industry.

Unfortunately this very breadth of allowable grades is far from an ideal delivery market for a fabricator seeking marginal requirements over and above those already contracted by his supplier. In the main therefore the setting of the standards for the LME contract has been a question of compromise between two apparently conflicting requirements—the broad spectrum within which to hedge and even to price (with plenty of metal on warrant) and the far more precise demand of to-day's technology.

Bridge

It has been precisely in negotiating these difficult waters that an LME Committee itself comprised of representatives of all sides of the equation has more than justified itself. Somehow this body has reached agreement among its constituent members and has produced on demand a bridge over the gap between being too close to the game to see the broad picture and being so detached as not to appreciate the finer points.

The gradual spread of the approved delivery points within which are situated registered warehouses (the LME, contrary to some popular belief, merely approves and in no way owns or controls its registered warehouses) has moved in parallel with the spread of the interests making use of the market. From the early and formulative years of London merchants taking delivery in warehouse within the U.K.—or of lead and zinc ex-ship in the Thames—there has developed a nexus of warehouses mostly on the Northern European seaboard.

This spread only commenced in recent years, and there is as yet no way of defining how far beyond this immediate area it may go. Rotterdam was the first port to be taken into the LME deliveries system, early in the 1960s, and this was was followed by Antwerp, Hamburg and Bremen.

Even this geographically rather modest development has brought its problems: VAT and the European Common Market tariffs and quotas on lead and zinc (both of which are produced within the Community) to name but two. In many senses more pressing was the matter of foreign exchange restrictions;

CONTINUED ON NEXT PAGE

Inside the dealing room to-day

NDING THE London Metal change is the first problem someone who wants to see s internationally important rket in operation. Most Lon- taxi drivers will look blank shake their heads if asked go to the Exchange; the same ponse is also likely if told t the Exchange address is in hittington Avenue. A request Leadenhall Market should the trick, but finding the change is still a major exer- e, even after threading past meat and produce stores in e search for Whittington enue, which is distinguished first sight mainly by a lurid agazine shop and cafes ecialising in the luncheon ucher trade.

The Exchange building is arked only by a discreet sign the door, which gives little dication that a few yards vay millions of pounds are anging hands daily. Casual sitors are not encouraged, alike the "soft" (non-metal) mmodity markets which have uilt-in public galleries, and ecurity reasons have made ntry more difficult. Visitors to e Exchange either have to be uests of member companies nd officials, or bear the con- derable cost of being an asso- ate member.

Once inside it becomes vious why traders on the Ex- ange are described as ring- aling members. The trading ea is dominated by a big circle four large curved pew-type ooden benches, comprising tween them the 40 seats avail- le on the Exchange where the ng-dealing members sit either atchful and taut with excite- ent during busy periods or nguidly, with bored pressions, during inactive riods.

The ring is dominated by a large flat copper bowl in the middle, which turns out to be a mundane ashtray. Above, behind the rostrum, where the settlement prices are solemnly read out every trading day at the end of the second morning ring-trading session, are the chemical symbols of the five metals traded—copper; tin, lead, zinc and silver—lit up individually to show which metal is actually being traded below. A large block of numbers, which lights up on occasions, may also baffle the visitor on a first occasion who is seeking some way of identifying price trends from the market jargon exchanged between members. In fact the block of numbers are merely a list of the telephone box numbers, which light up when there is an unanswered incoming call.

Sessions

Trading sessions are concentrated into short bursts of five minutes for each of the metals, signified by the ringing of a bell at the end of the session, when no further bids or offers can be made. This means that a busy trading session in copper, for example, mounts to a climax of activity with traders frantically trying to conclude their business just before the bell. It then abruptly ends to be followed by, possibly, a quiet trading session in another metal where there is little interest or activity and traders and helpers leave the ring to a bored few swopping desultory bids.

Behind the benches are the clerks and helpers, noting down details of the contracts agreed between the traders across the ring and rushing back and forth to the company 'phone box, with direct lines to the office, in order to provide a commentary on what is going on and take in orders or instructions. For those unfortunate companies whose telephone boxes are far away from their ring seat, because of restricted room, the clerks often use "tic tac" methods to their colleagues on the telephones to keep them in touch with what is going on. The Exchange committee has been somewhat unhappy about this since the similarity with bookmakers on a racecourse is *inescapable* and tends to reinforce the image of a gambling casino—a term which critics have used frequently over the years to ruffle the feathers of the Exchange members.

Potential criticism about lack of equal opportunities has been forestalled recently by the introduction of the first female trading clerk to be working on the Ring, although so far the Exchange has not thought it necessary to introduce extra facilities for her comfort. There has been no written rule actually banning women from the Exchange; they just have not been assigned there in what is still very much a man's world —the number of women at the Exchange's annual dinner can be counted on one hand from the 2,000 or so guests present. But it appears that another City exclusive male bastion has quietly bowed to modern pressures.

But past traditions remain. Membership of the Exchange is jealously guarded by the Board, which is responsible as landlords for the day-to-day running of the Exchange, and the annually elected management committee which decides on all matters affecting trading on the ring—a legacy of the time when the Board refused to introduce some reforms required by a majority of the member companies. There are also the "kerb" trading sessions, distinguished from the "ring" dealing sessions. The description "kerb" dates back to the time when the traders used to congregate outside the building to continue trading, much to the annoyance of passers-by and the traffic. So they were moved back into the building for these so-called informal sessions which follow the ring-dealing periods. However one rule remains—a fine of £50 for any trader in the Exchange building after 5 p.m.

The official closing prices of the Exchange are the settlement prices on which most supply contracts are based, at the end of the second morning ring at 1:30 p.m. This is because of the practical impossibility of sorting out contracts and possible disputes after the end of the afternoon session—the "unofficial close"—in time for members to get home at a reasonable hour. The daily exchange of warrants each morning, as delivery dates fall due, already makes for a late start, with first trading session at 12.00 noon, meaning a late lunch prior to traders getting back for the opening of the New York metal markets.

Trading etiquette on the ring is very strict. No smoking is permitted during ring-dealing periods (although this is relaxed during the "kerb" sessions); swearing is fined; and traders are not supposed to direct their offers to buy or sell direct to any other member but "across" the ring so that everyone has a fair chance to respond. The first acceptance is obliged to take at least one lot, but can then farm the rest out to anyone else interested. The LME encourages the principals, or at least senior executives of the member companies, to trade on the ring. Although this is no longer carried out by many companies, whose senior executives prefer to stay back in the offices, there are a considerable number of senior dealers still trading on the ring, in sharp contrast to the "soft" commodity markets where the traders tend to be much younger, rowdier, and rely more on instructions from the office. Quick thinking, especially in calculating figures, is the main attribute of a good "floor" trader on any market, but on the Metal Exchange "ring" a loud, clear, voice and confident manner is just as important, since being distinguished above the uproar in a busy trading period can make all the difference in seizing the best market opportunities.

Strange

It seems at first a strange and peculiar way to spend the day, or a lifetime, earning a living, shouting across an empty circle at a group of men doing exactly the same. It seems even stranger that the prices of vital raw materials should be decided in this apparently, haphazard manner especially during hectic periods of activity that often break out when the noise of voices all shouting together seemingly makes it impossible for anyone to understand what is going on, let alone be committing themselves to transactions worth many millions of pounds each day.

But the traders claim that the alternatives would not work as well, with computers, for example, being unable to distinguish between important influential buying or selling from a particular quarter, as well as not having the personal touch in spotting trading opportunities. In any event trading on the London Metal Exchange is positively civilised even at the busiest of times when compared with the rough and tumble of other commodity markets, particularly the all-powerful Chicago Board of Trade grain futures pits, where tempers get frayed under the intense pressure and blows, kicks and fights in an effort to gain attention are part of the normal day's trading pattern.

In fact the importance of the LME ring is gradually diminishing, with a large proportion of the total business now being done in "before" and "after" hours inter-office trading by telephone and telex between metal traders. Nevertheless ring dealing sessions publicly express to anyone interested the prevailing prices of metals decided by a consensus of the world's buyers and sellers meeting at one central point. So far it is the best method found of "free" market trading and has thus survived and prospered despite its apparent out of date existence.

John Edwards

Leadenhall Market in 1882, which was the year the London Metal Exchange moved in.

Cowper

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ut here happily the Committee nd the Bank of England were not slow to get together and work out the "Metals Scheme" which has taken away many of the very real problems which would well have beset members and their clients who might and probably would) have bought in London for sterling metal which was located in Rotterdam or Hamburg.

The scheme originated shortly after the reintroduction of the tin market in 1949, and has resulted in a regular liaison between the Bank and the Committee of the LME with quarterly meetings at formal level interspersed with more frequent informal and usually constructive encounters. This is of course a relationship of which the LME is both proud and fond.

It speaks well for the founding fathers of the LME—taking all in all—that both the basic philosophy and the detailed elements of the exchange have survived for so long with so little redesign or restressing. In terms of trade, politics, technology and economics the past hundred years have after all been eventful ones. They have brought great changes and on occasion vast disturbances of the arena of international commerce. That the LME has weathered all this with so little apparent difficulty is probably because by its nature it is a highly flexible organism and capable of almost indefinite adaptation to changing circumstances.

If there are any qualms about the coming decades they would be in connexion with this very matter of rigidity. Introversion is a potentially dangerous state of mind if allowed to be carried too far, and in a world as specialised as that of the commodity markets it is one which is all too easily engendered.

For the LME, as for all the international markets of its kind (and there are not very many), continuing health is to a very great extent a question of willingness to adapt and to modify attitudes as well as procedures: as requirements of international trade themselves change. Any desire to bend these requirements and fit them into an established protocol has to be resisted firmly. No doubt, the future generation of LME management is even now having this instinct for adaptability firmly implanted as they go about their business on this historically successful and healthy market.

R. Gibson Jarvie
Executive Secretary,
London Metal Exchange

Unique among the world's markets

THE LONDON METAL Exchange is neither one thing nor another. It is not a proper commodity futures market since trading is confined to only three months ahead for the base metals and seven months for silver. Nor is it particularly significant as a physical market since the vast proportion of the trade in the metals quoted—copper, tin, lead, zinc and silver—is done by direct supply contracts between producers and consumers (fabricators). Yet the LME daily quotations are the basis used for deciding the price of copper, tin and lead charged by producers outside the North American continent and are an important influence in base metal pricing throughout the world. This pre-eminent role has been built up during the past 100 years on a strange formula that makes the London Metal Exchange unique among world commodity markets.

For a start trading on the Exchange is on a principals' contract — in other words every transaction concluded is between the individual ring-dealing member companies, who each bear the financial responsibility for honouring the contract terms. It does not go through a central clearing house as with other futures markets, although there is some central sorting out of warrants and payments due each day to avoid unnecessary duplication of metal and cash deliveries among members. Nevertheless each company is individually responsible for meeting commitments across the ring, using a common LME standard contact which has another unusual feature — the deliberate exclusion of any force majeure clause which is normally included in any supply contract to allow for some unforeseen development beyond the control of the supplier, to be given as a reason for non-delivery. Under the LME contract the commitment to supply must be honoured whatever the circumstances.

Physical

The exclusion of a force majeure clause is in keeping with the Exchange's unusually strong links with actual physical trading of metals. Normally commodity futures markets comprises mainly "paper" transactions only, with purchases and sales cancelling each other out before the date of delivery falls due, and only a very small percentage of the actual commodity is traded through the market. But on the Exchange the percentage of physical transactions is very much greater, although still dwarfed by the "paper" futures business. The Exchange is a residual market of last resort, for both producers and consumers; a place where surplus supplies can be dumped in times of plenty and where extra supplies are sought in times of scarcity. The amount of metal stocks held in the LME appointed warehouses, scattered throughout Britain and Western Europe, has a definite influence on market price trends since, although small in total world volume terms, the stocks do represent that final fraction that makes all the difference between a situation of shortage or surplus.

The links between the Exchange and the physical trade are even stronger. Unlike any other futures market, business within the three months ahead quoted can be specified for a particular trading day and there can be considerable differences between the supply availability from day to day that can be ironed out by borrowing or lending according to the day's requirements.

This daily trading enables a hedging transaction to be fixed far more closely to the physical date of delivery, providing greater protection against price fluctuations, and also enables fabricators to use a special "back pricing" formula incorporated in the direct supply contracts with producers whereby the fabricator has a wider choice of when to price his supplies received apart from the actual date of delivery. On occasions he can decide to price the supplies received on the day before delivery if the market has risen in the meantime. This enables the fabricators in turn to be able to offer a firm price to his customers without risking a serious loss.

Service to the trade by the LME members is taken even further in that the bulk of trade clients do not have to put up margin or deposit for forward transactions despite the financial commitment involved. In turn the members themselves do not charge each other deposits on future business. Deposits are required from non-trade clients, or anyone who the member feels may represent a financial risk, however small. It is claimed that in this way trade hedging and use of the market is actively encouraged by reducing the cost involved to a minimum. If a clearing house system was introduced this would inevitably involve the payment of a margin to the clearing house which most member companies, if not all, would be forced to pass on to the trade client, thus effectively putting up the cost of trade hedging business.

Margin

Although other futures markets with clearing house systems, like cocoa and coffee, include large trade hedging participation, some LME members claim that fabricators would simply stop or greatly reduce their trade business if faced with the large sums involved in putting up margins. On the other hand, Exchange traders are effectively giving the trade users of the market three months credit and this basically prevents them from extending the trading contract facilities available to a longer time ahead, say 13 months, which is often needed for hedging purposes.

Business beyond three months can be done with individual member companies, who simply add on the interest rate calculated on a monthly basis to arrive at the cost of the metal to be bought, but "paper" hedging transactions have at present to be rolled forward every three months—an expensive, time-wasting exercise that does not provide a true hedge for anyone wishing to make price commitments for a longer period ahead than three months. The silver contract of seven months ahead is purely a compromise recognition of the small percentage of trade business in that particular market and the longer periods ahead offered by the bigger, better established, silver markets both in London (operated by the bullion brokers) and in New York and Chicago.

The lack of a central clearing house is restricting in that transactions have to be completed through one dealer, as a principal, instead of purchases and sales through different traders being matched up.

In recent years there has been increasing concern that the principals' contract may not be sufficiently strong to withstand any financial disaster hitting one company and having a domino effect on the others because of the huge sums involved following the steep rise in the price of metals and the greatly increased volume of business. Debate for and against the introduction of a clearing house for the Exchange, with a central body taking the financial risk, has been long and at times bitter between member companies, with the Bank of England making no secret of the fact that it would like the greater safety of a clearing house system.

But so far members have only agreed in principle to a compromise formula, of a self-monitoring scheme, whose details are yet to be worked out properly. The intention is to have a system that gives prior warning of any potentially dangerous financial situation building up so that evasive action can be taken in time. This may mean raising the guarantees provided by the member companies to a much higher, common, level of say £5m. which at present is only provided by some new members and not by older member companies whose guarantees were set at a much lower level. It may also mean raising contributions to the existing compensation fund, which pays within its resources, compensation for any losses suffered by ring-dealing members trading with each other but does not compensate outside clients for any losses incurred if a ring member is unable to meet its commitments. But these reforms are as far as some members wish to go, since they consider the principals contract to be vital to the success of the Exchange in contrast to a clearing house, which would put it on a par with other futures markets, like the New York copper and silver market (known as Comex) whose influence on the rest of the world is far less although it has a greater volume of turnover annually mainly resulting from the big flow of speculative funds that pour into all the U.S. commodity markets.

In recent years there is no denying that speculative involvement has also grown on the London Metal Exchange reflecting the general world uncertainty about inflation, currency instability and concern about raw material resources triggered off the oil crisis.

But it can be claimed that many aspects of this increased speculative activity is beneficial to trade interests, particularly in supplying the extra funds required to carry the big surplus stocks that have built up recently especially for copper.

The market mechanism is so geared that in times of surplus the rate of contango (discount of the cash price compared with the forward three months quotation) represents competitive return compared with other interest rates, even if the transaction is somewhat more complicated. It involves buying the actual metal at the spot price, receiving in return the negotiable warehouse warrants, and selling an equivalent amount forward at the higher three months price.

The warrants are then delivered against the sale in three months time. The locked-in profit—the difference between the cash and three months—is the "interest" rate, less the costs involved in storing and insuring the metal held in the warehouse during the interim period, plus the brokers' commission. This type of investment has become increasingly popular with banks and financial institutions in recent years but will of course only continue while the over-supply situation ensures a contango offering rate of interest that on occasions can be much higher than other competitive investments. The Exchange has also attracted a whole new type of so called long-term investment from speculators disillusioned with the instability of "paper" money seeking safety in raw materials, like metals, whose prices must eventually rise in line with increasing costs of production world wide as the supply of natural resources diminishes or at least becomes much more difficult to find and exploit.

It is estimated that without this extra inflow of funds copper prices, for example, could have been at least £100 a tonne lower than present levels while producers would also have been faced with a greatly increased burden in carrying extra stocks. While this may have benefited consumers in the short term, it could have had serious repercussions for future supply prospects.

Triumphed

There have been numerous attempts to find methods of stabilising the price of base metals to a greater degree compared with the daily fluctuations on the Metal Exchange that bring not only considerable uncertainty for producers especially in the developing countries relying on metal exports, but also for consumers having to plan their production costs well ahead. But so far the Metal Exchange price mechanism, with all its faults, has triumphed. In North America, producer prices have been imposed by the leading companies, who are also the fabricators and therefore take a significant share of their own output. Nevertheless they have to move in line with the LME quotations to remain competitive, especially when there is a surplus situation.

Western world zinc producers have also introduced in recent years a European producer price to cover the bulk of zinc trading outside the U.S. But changes in exchange rates, and a gross surplus of supplies, have recently made this price something of a farce and it survives, for the moment, virtually in nominal form.

Tin values have been controlled to an extent by the International Tin Agreement except above the "ceiling" level. But efforts to control copper and lead prices have always failed, partly because of the large percentage of uncontrollable scrap supplies and partly because there are too many powerful market forces at work, especially in the case of copper.

J.E.

External pressures build up

THE STANDARD retort offered to those who criticise the LME, charging that the volatility of its price movements makes it a questionable medium for the pricing of vital commodities, is simply that nothing better has been devised. It is a negative but effective argument, at least for the immediate future.

Yet there are trends both in the pattern of international trade and in the way Governments and producers see that pattern which are inimical to the continuation of the LME in its present form, that is to say as a barometer of supply and demand providing a reference on which minerals contracts, particularly for copper, may be based.

In the face of these trends it may even be seen as amazing that the LME has lasted as long as it has. Its early evolution was in response to the needs of a free enterprise system working on a relatively narrow base. It provided a forum in which the play of market forces could be seen to be working, easing the problems of distribution between a relatively small number of mines and a relatively small number of consumers.

But since the end of the 19th century both the mining industry and the industries it feeds have become more extensive and inevitably more complicated in organisation. The result has been a diffusion of ownership, and a break in the chain which linked an industry in a major industrialised country like Britain with a mine in what was probably an economically dependent country.

In the developing countries now, the governments are not solely concerned with providing raw materials in faraway places and adapting the pattern of their production to the movements of the market. They seek internal economic and social benefits which make them less responsive to market forces than the 19th century mine-owner might have been.

Role

Thus, on any reckoning of the supply-demand situation for copper in 1974-75 and the effect this had on LME prices, it would have been better for the Zambian mines to stop production. Yet, given the role of the mines in the economic and social fabric of Zambia, this was clearly an impossible solution.

Indeed the role of mineral exports in the economic development of the copper producing countries like Zambia, Zaire, Chile and Peru has led their collective organisation, CIPEC, to seek a means of foiling the market.

While it is true that this search has so far had scant success, the fact that it is taking place serves notice that producers are not prepared to accept the LME as a pricing medium when the prices it throws up are insufficient to meet the wider demands of internal policies being worked out domestically. The old free enterprise system has been diluted.

On the face of it this looks like a clash between governments and the market, but even the independent mining companies have reservations about the LME, at least when prices are low. "This anachronistic and volatile method of pricing should have been relegated many decades ago to an economic museum," said Mr. J. Vuillequez, the then vice-chairman of the American group, Amax, in 1974.

In the longer term, the development of a wider industrial base in producing countries outside the U.S., Canada and Australia, would in any case tend to diminish the pricing role of the LME because a greater degree of processing could take place in the country of origin.

As the Canadian consultant

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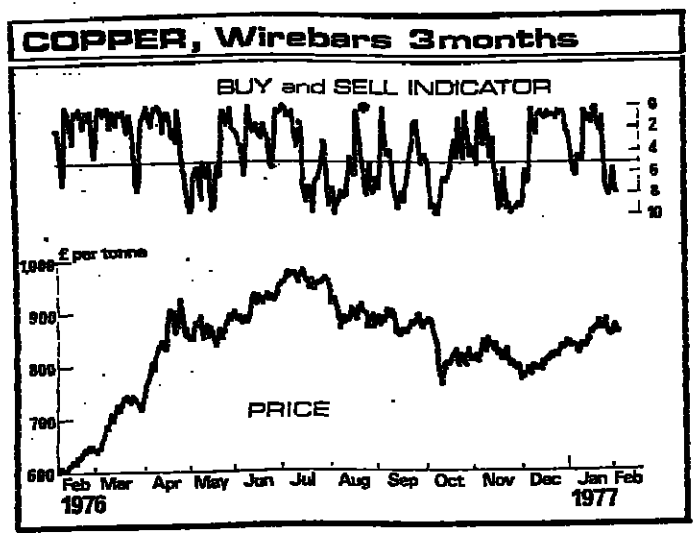
LONDON METAL EXCHANGE V

Forecasting price movements

RECASTING METAL price s should, in theory, be derably easier than in the commodity markets, where edictable weather condi- can literally overnight supply predictions by sing severe crop damage. In is production trends are well signposted with prior ledge of mine output capa- planned many years ahead regular reporting by the ng companies on how they performed and are likely rform in order to keep their sholders or supporting fin- l institutions in the pic- There are, of course, mine ters, and more commonly es, but these can be written an historical working capa- with some degree of racy, except for some major rbances such as when the non-ferrous metal workers ur contracts expire every e years—as they do this amer. But on the whole it is too difficult to assess total duction capacity in the Wes- world at least and make wance based on previous de for strikes and other ntial production setbacks, imports or exports by the munist bloc countries and opper, lead and silver the me likely to be recovered he form of scrap, bearing in l available refining capacity.

owever, it is on the demand that metals forecasting ars to go awry. Consump- of metals, although vital materials, is more in- nced than, say, food com- ities by the economic state the world and individual tries. Although it can be ulated that over a period and for a particular metal kely to grow by a certain entage each year, based on orical trends, the annual wth can vary widely even if king to the predicted pattern r a span of years. There are kinds of variables. Reaction he price of the metal in each ntry, distorted nowadays by nges in exchange rates; tech- gical developments bringing ats of substitution or a de- in usage of the metal; and, ourse, the general economic th of the world and indivi- l countries, that controls and for end-products using metals and interest rates ouraging or discouraging sumer stockholding. Some erts argue that in fact there ittle basic change in metals sumption, except in the case new technology, but only ations in consumer stocks to r demand trends signifi- tly. Be that as it may, any tal demand forecasting has to based primarily on the likely economic state of the world and the prospects for the industries using the metals, which involves forecasting on a much wider scale. Added in to complicate the whole issue are the generally unpredictable shifts in demand from behind the iron and bamboo curtains, often motivated more by political reasons than real consumption needs, and the almost equally unpredictable release or otherwise of metals built up in the giant U.S. strategic stockpile in the 1950s.



Methods

The mining companies, and independent companies like Commodities Research Unit and Brook Hunt and Associates, have built up their own forecasting methods to help make decisions about whether or not to go ahead with proposed production expansion plans due to come into fruition many years ahead after the expenditure of vast sums of money, supplied by often none too willing financial institutions. But these studies cost money and are often none too accurate for short-term market trends which are usually of greatest interest to users of the London Metal Exchange. It is not much good, for example, to be told that the price of copper will by 10 per cent higher in a year from now—and for the forecast to be proved right—if during that 12 months the prices dip sharply before recovering as predicted as the buyer could well have been wiped out in the price decline period.

So in recent years metal market traders have been increasingly influenced by the use of charts, based on past price trends. It is claimed that charts take into account all the market factors, known or hidden, by tracking price behaviour; hence the famous statement by a "pure" chartist: "Don't confuse me with the facts."

Charts have a particular attraction for private speculators, who lack the up-to-date news of fundamental supply-demand developments available often before generally known to the trade or certain privileged sectors involved. The producer, for instance, will be aware of setbacks in his mine that will affect supplies available.

Assuming that the charts will faithfully reflect these hidden influences, because of activity on the market, then the private speculator is close to being on equal terms with those "in the know" without having to spend time and effort in trying to keep up on fundamental developments. This, of course, applies equally to a large section of the trade, consumers in particular, who do not have the facilities or desire to keep too closely in touch with what is going on in an area only concerning their raw material costs. So important has the influence of chartists become on the market price movements that merchants and brokers too can no longer afford to ignore them and indeed most of them watch the charts very closely for indications of when there is likely to be a break up or down signalled. Although interpretation of chart patterns is infinitely variable a common occurrence these days is for certain points to be generally recognised by market traders as of chart significance and likely to bring a burst of activity from the legion of chartist followers. So much so that the charts themselves influence the market behaviour to a large extent, causing price fluctuations with no rhyme nor reason—an apparently self-defeating exercise except for the market specialists able to take advantage of these movements or even trigger them off as a means of forcing the market in a particular direction.

Charts for commodity futures markets are relatively uncomplicated encompassing a much wider range than the ones for individual stock exchange companies.

Coverage

But over the years they have shown increasing sophistication, not only in presentation but also in interpretation and coverage. Not only price trends are shown nowadays, but also the highs and lows of the day's trading: the volume of turnover: the "open" position (unmatched buyers or sellers); and the trend line. There are further sophistications too. Chart Analysis, for example, has an "indicator" showing whether the market is either overbought or oversold which may be vitally important in deciding whether to go in or not despite price indications.

A recent innovation by Eurocharts is its timing indicator based on scale from one to ten that gives buy and sell signals of fluctuating strength depending how far it is away from the median point of five. This is an easy-to-follow forecasting method, backed up by the range of chartist information available on a daily, weekly or monthly basis. Eurocharts are one of the increasing band of commodity forecasters using computers to assess the many variables and they have recently linked up with Econintel, the economic forecasting group, to use the joint resources of their data banks on the economic outlook and commodity trends.

Computer forecasts are also being increasingly used for the so-called "managed funds," where the system is king and investment purely based on what the computer, working on a programmed pattern, says. Selling or buying by "computer funds," with huge resources at their disposal, is becoming an increasingly important influence in the commodity markets generally although much more widely used in the U.S. than in London.

But past experience has shown that however confident and sophisticated forecasting methods become, the metal markets—and copper in particular—have regularly moved in totally unpredictable fashion leaving the pundits with red faces and a band of unhappy followers.

J.E.

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drew J. Freyman, once wrote the IMF-World Bank publica- ı, Finance and Development, long-term objective is that minerals sector should pro- e inputs into the economy, reby stimulating forward egration into the fabricating cess and backward integra- ı into service and manu- turing industries."

ightening

leanwhile the tightening re- onship between producers l consumers is likely to have nore profound effect on de- ing whether the LME will nain central to the activity of industry. The distinction be- een the two has become pro- ssively more blurred. Partly s is a result of a natural erdependence, but finance is significant factor.

The cost of developing new nes has escalated to such an ent that producers have been ced to seek forms of financ- outside the funds for invest- nt they can generate them- ves. One response to this uation has been to sign long- m contracts with potential stomers, who also might take equity stake in the venture.

At the same time it is coming the habit for govern- nts outside the U.S. and uth Africa to seek participa- n either through equity kes or royalty and tax pay- nts in new mining ventures. is trend, added to the con- mer's link with the producer, ates a concentration of wer through coalescence of erests which could make the le of the LME peripheral.

Concentrations of a different shion have already attracted e attention of the vice-chair- an of the LME Committee, Mr. I. E. J. Foster. His concern, voiced during a recent speech in New York was the polarisation of the metals world into large groupings: producers and fabricators, the Western democracies and Comecon, the rich and the poor.

Users of the LME were coalescing into larger groups to the detriment of independent merchants and brokers. "The independents give a bit of very necessary ginger to a market which might otherwise either go all one way, or die of sheer paralysis if producers and consumers were to match each other evenly," Mr. Foster said.

While it is doubtful that producers and consumers could ever match each other's needs with exact precision, it is none the less the case that their joint efforts can and do counteract the market mechanism to mutual benefit. At this stage the LME is affected only by the International Tin Agreement, but international moves are afoot through the United Nations Conference on Trade and Development to make copper market movements more controlled.

The existence of the International Tin Council's buffer stock and the negotiation of a range of prices to govern the trading of the buffer stock manager has managed, at least until the buffer stock ran out recently, to act as a steadying influence on prices. But the activities of the buffer stock manager have not been decisive.

In his book on the working of the tin commodity agreement, William Fox complains that the ITC has never put enough pressure on the LME to arrange its affairs in such a way as to minimise the impact on prices of "massive speculative dealings." He argues: "While no action is taken the ability of the International Tin Council to stabilise prices through the Metal Exchange will always be limited."

This sort of limitation has not prevented international discussions from evolving the notion, under the auspices of UNCTAD, of a similar agreement for copper. The discussions have come unstuck, however, on the degree of finance needed, where to find that finance and the necessary co-operation of the consumers. Indeed, one of the weaknesses of the tin buffer stock has been its shortage both of cash and material.

Reduced

The point is that pressures are building up strongly to influence the pricing function of the LME. The pressures have never been sufficiently co-ordinated to endanger the existence of the LME. While it is true that the existence of a European producer price for zinc has reduced the role of that particular market, there is nothing to suggest that taking a similar move for copper would be effective.

In the first place the existence of a strong scrap market—indeed, some 40 per cent. of the copper produced comes from scrap—makes it difficult to calculate a producer price divorced from the market, at least under present conditions. In the second place the copper producers, embracing a wide variety of production costs, have found it hard to agree on what any collective price should be. In this connection there was an attempt in 1955-56 by the African producers, the then Rhodesian Selection Trust and Union Minière, to "announce" prices at which they would sell. But they were forced to revert to the LME mechanism

These considerations are vital because if prices are not to be established by the market, they can only be established by producers. It is true that Government - to - Government negotiations can arrange bulk-buying contracts as was the case in World War II, but even then the prices fixed were related to the LME levels in 1939.

What seems likely to happen over the coming years is that the interplay of the different historical trends will squeeze the LME, limiting its freedom of movement. But as long as it remains linked, even in marginal quantities, to the physical distribution of metal and its prices reflect the general business atmosphere, currency changes and so on, there seems no reason why its present pricing role should not continue.

The LME's great strength is that it is neutral, because it is both independent and international. Speaking in its defence in October 1974, at a time when it had been under severe attack for the volatility of its price movements, the LME Committee chairman, Mr. Fred Wolff said, "Those who continue to criticise do not offer an alternative solution.

"A machine such as the LME is only as effective as the use made of it. Some of those in the trade stand aside virtuously wringing their hands instead of using the very instrument that can be most effective to them. They could make the Exchange an even more realistic machine."

Paul Cheeseright

An established place in the City

ALTHOUGH THERE have been considerable changes in the international pattern of trade since the early decades of this century, and other markets have been established in places as far distant as Penang and New York, the LME has still managed to forge a distinct identity and to occupy a pivotal place in world metals trading. One of the main reasons for this has been its place within the City of London.

The LME and the City in fact grew together. Trading facilities and the financial markets are interdependent. "The financial resources available to the terminal markets are obviously of considerable importance to their success, and it is in this respect that their linkages with the City of London are of vital importance," wrote Professor Graham Rees.

Over the last century the LME has drawn business to the City financial markets and the LME has provided an outlet for certain types of City investment. They have fed off each other.

The result has been that the LME makes a considerable but unspecified contribution to the invisible earnings of the City. LME earnings are absorbed by the Committee of Invisible Exports under the general title of Merchanting, which in 1974 provided 15 per cent. of the City's income at £134m.

In 1975 the Merchanting total was £124m., and the Committee's chairman Sir Francis Sandilands said last December that 1976 earnings should be "well in excess of £100m." At present the Committee and the Bank of England are conducting a survey which will lead to a greater precision in the statistics and specify more exactly the contribution of the LME.

The LME is, of course, part of the Federation of Commodity Associations and it is through the Federation that it is represented on the City's liaison body, the Capital Markets Committee. But its most important single relationship in the City is its working link with the Bank of England.

Considered over a long perspective this link is recent. Before the Second World War the Bank showed little interest. It was only in the post-war years as normal trading gradually resumed that the link was made, essentially in the early stages because of the immediate demands of national economic policy.

The essence of the relationship is the principle of self-regulation, and in this respect the Bank is simply following, and the LME is accepting, the code that governs official supervision of the City financial and trading markets.

The LME is jealous of its independence, feeling that it needs freedom to reflect the changing pattern of market forces if it is to be regarded as an international pricing medium. The Bank, for its part, is keen that the LME should continue to play this role, mindful of the benefits that accrue in invisible earnings.

The Bank is, however, concerned that the LME should be well-run and that its financial viability should be above question. There wo'l be an angry official frown if there should be, for example, a repetition in London of the sort of dealings which led to the collapse of the Paris sugar market.

The main sanction the Bank has over the members of the LME is its power to withdraw exemptions from exchange control regulations. This is, indeed, the Bank's only statutory right over the LME, but it is a right which goes to the root of metals trading.

Freedom

The freedom from exchange control restrictions allows the members to buy metals anywhere in the world and to pay for them through an external account in either sterling or a foreign currency. At the same time there is no restriction regarding the sale of the metals.

The concessions were first granted in 1949, when the LME tin market reopened and when the Government began to phase out its bulk buying policies and allow a partial return to the market economy. There could be no trading without the freedom to move currencies around the world.

In return the LME members had to provide the Bank with a monthly account of their foreign exchange positions in as much as they affected LME dealings. These retrospective checks by the Bank nevertheless gave the authorities the opportunity to see when what might be dangerous positions were building up; when, for example, an LME member might be holding stocks abroad which were clearly in excess of the normal requirements of clients.

The important point for the self-regulation of the LME, however, and an instance of the delicate relationship between the LME and the Bank, was that the LME Committee provided the Bank with the names of companies to whom the exchange control concessions should be made.

These arrangements were embodied in a Memorandum of Understanding, which also provided for the Bank and the LME Committee to meet formally four times a year to discuss matters of mutual interest. In fact, a Bank official visits the LME each Tuesday and informal contacts are extensive.

In the event of the Bank seeing that dangerous speculative positions have been built up it has the right to draw this to the attention of the LME and suggest that action should be taken. It is generally left to the LME Committee to find its own solutions.

In 1953, for example, the Bank asked the LME Committee to request members to be very careful about the tin contracts into which they were entering because of the practice of using exchange rate differentials to buy tin in London and Singapore and re-sell it in New York to register currency gains.

Since 1973-74, when the surge in commodity prices generally excited a deal of unfavourable comment about the role of the markets, and especially some of the speculative activities, there is some evidence that the Bank has been anxious to extend its supervisory role.

In response to the price boom the Memorandum of Understanding was widened so that the Bank could receive a monthly assessment of the balance between trade and non-trade positions on the market. This is, of necessity vague because of the difficulty in disentangling the reasons behind each transaction. Nevertheless the system was built up gradually in 1975 and was seen to be working last year.

On May 13, 1976, the LME Committee told its members that they should not accept new trade business in zinc until further notice. The returns that the Bank had been receiving in March and April indicated that large speculative positions were being built up. It exercised its right to draw this to the attention of the LME Committee which in turn instituted the ban.

There was a fear at the time that this chain of events might herald an attempt by the Bank to cut down the level of speculative activity on the market; that this might not be simply a corrective to a situation which appeared to be growing out of hand. But nothing has happened since last summer to suggest the Bank is thinking in terms of a crackdown on the LME, or, indeed, on other markets.

It now seems likely that any fundamental change in the Bank's relationship with the LME will have to await the findings of the inquiry into the City being staged by the Wilson Committee. In the meantime the Bank is doing its best to nudge the LME into making a number of internal changes.

Despite the guarantees of financial standing which LME members have to provide and the existence of a fund to meet any market failures, the Bank is known to think that the existing trading system based on contracts between principals is inadequate. It would prefer a clearing house system along the lines adopted by the soft commodity traders, but is prepared to accept the essentially compromise proposal of a monitoring system to survey the building and unwinding of dealers' positions.

P.C.

Mining costs

METAL prices must rise. All that remains to be seen is when the major advance will get under way and how far it will go. The forces that are now at work could, if they remain unchecked, lead to a kind of alchemist's nightmare in soaring base-metal prices by the end of the century.

Restricted metal supplies available only to the highest bidder would not only wreak havoc with world economies but also have a fearful social impact on a world in which metal is almost as vital as food to the survival of large populations. We must move quickly towards the development of the new era of mines which will supplement and eventually replace those now in existence.

But there is virtually no major new mining development going ahead at the moment.

This is not for the want of new deposits and, indeed, there are no fears that the earth's finite store of minerals is being unduly depleted. Just as vast areas have yet to be turned over to food production, so the mineral exploration teams have barely started to unlock the world's hidden mineral wealth.

They have, however, found most of the more obvious mining "plums" of rich ore deposits in the more accessible parts of the world. Nowadays prospectors need to probe more and more into the remoter areas and this costs a great deal of money, especially when it is remembered that only one out of some 200 exploration prospects is likely to result in a viable mining proposition.

Furthermore, the nature of things is that the mining industry is having to accept low-grade ore deposits which must be worked on a big scale if they are to be payable. Costly infrastructure also needs to be set up in the new mining areas and on top of all the traditional problems, the mining industry has also to overcome objections of the environmental lobby.

Another relatively new hazard to be faced is that of fluctuating exchange rates, which can be a burden as well as a bonus for international companies, especially when they have large loan commitments. Then there is the growing tendency among governments to milk mine earnings in good years and quietly overlook the producers' problem in the lean times.

Australia's copper-producing MIM Holdings, for example, recently pointed out that the cost of moving copper from its Queensland mine by rail over some 500 miles to the Townsville refinery had risen to the point where it was more than the cost of shipping the metal from Townsville to Europe. The Queensland mineral royalty, however, allows no compensation for higher costs of production.

Throughout the world inflation has weighed heavily on the mining industry. The expectation of a copper price of, say 80 cents per lb., is now the least needed to justify the start of development of a big low-grade copper mine. In fact, the suspended Tenke-Fungurume venture in Zaire would want to see a higher price than this despite the fact that the deposit is of high grade ore containing some 5.7 per cent. copper.

Rising capital needs are such that the Rio Tinto-Zinc group's Bougainville copper-gold mine in Papua, New Guinea, which reached production in 1972 at a cost of $430m., would require some $1.2bn. if it were launched to-day. And it must be remembered that the huge sums needed for financing a major new operation—often dependent on the fortunes of a single product—have to be tied up in the long lead time to production which can be eight to ten years' duration.

Worries

The mining industry is prepared to live with these difficulties, and indeed it reckons that metal prices in the 1980s will offer a fair return on capital invested now. What really worries the mining men is the trend for governments throughout the world to ignore the fact that a high risk industry requires a proportionately high reward.

Before mine development costs had soared to their present proportions, mine financing was achieved by means of a promoting company issuing shares. Then came the South African system of mining finance houses, such as the giant Anglo American Corporation, which provided the initial risk capital and subsequently sold off a proportion of shares in a new project via a public issue once the venture had reached the indicated viability stage.

As the cost of new mines grew larger financing them required consortia of mining houses as in the case of the opening up of Western Australia's vast iron ore fields. Forward payment sales contracts were entered into with customers and, inevitably, international bankers were invited to play their part.

Then the politicians moved into the act, ushering in the present era when, in the words of Mr. Sidney Spiro, ex-chairman of Charter Consolidated, "there are relatively few areas of the world where [mining] investment confidence is felt." Governments break the rules. Too often it is a case of "you find, we grab."

Nationalisation without adequate compensation: reneging on agreements: allowing the mining men and their backers to take the initial risks and then

CONTINUED ON NEXT PAGE

The ins and outs of option trading

GROWTH *of interest in* ...tal markets over the past ...ears has brought with it ...ater awareness of the ...y of operational strate... pen to the trader. And, ...st of the new operators speculators rather than ...cers or users of metal, the ...tions of metal options ...become much more widely ...iated.

...still the mere mention of ...s to many otherwise know...ble operators will bring ...ed expression, or even a ...stful sneer.

...gnorance is the mother of ...t can also be second-cousin ...eit. *Fear of the unknown* always been the main ...r to the wider use of ...odity options. But recently ...eputation of this useful, ...basically innocent, invest... tool has received a further ...k from allegations of ...-linked commodity frauds ... U.S.

...t month a long U.S. Com...y Futures Trading Com...n (CFTC) inquiry into allegations culminated in ...arging of three American ...nies, who had been sell... "London" commodity ...s, with fraud. The CFTC ...d the companies had used ...pressure sales tactics and ... customers about the ...and potential profits of in...ent in commodity options. If this is true it is clearly a case of the awareness of ignorance breeding deceit.

So there appear to be two distinct schools of thought among those ignorant of the true nature of the option market. Some regard it as a dangerous aberration and would not touch it with a barge-pole, while others are open to persuasion that it is virtually a way of printing money. In fact both propositions are more or less the reverse of the truth as *options, while constituting probably the least "dangerous" method of commodity speculation, measurably reduce (but do not limit) profit potential.*

The buyer of an option is effectively paying for the chance to profit from an investment which (if his market view proves wrong) he need never make.

Say a speculator takes the view that copper wirebars are undervalued at £800 a tonne. He could buy copper for delivery in six months time, or he could buy a six months "call" option (at a premium of about £80 a tonne) giving him the *right to buy at £800 a tonne at any time during the next six months (whatever the ruling market price).*

If the price rises to £850 a tonne during the period the first course will reap the speculator a profit of £50 a tonne (ignoring commissions and other costs), but the second course would leave him with a loss of £30 a tonne. If the price rises to £1,000 a tonne the straight purchase will bring a gross profit of £200 a tonne and the option purchase one of £120 a tonne. If the price falls both strategies will obviously show a loss, but whereas the option holder will merely allow his option to run out undeclared *and show an £80 a tonne loss* the straight buyer could in theory (but not in practice) lose the whole £800. For this *reason few speculators would* have the temerity to make an unguarded purchase in this way.

Caution

Caution demands that an acceptable loss level should be set and a "stop-loss order" given to the broker at this level. The big drawback to this plan is the possibility that a short-term price decline could knock the speculator out of the *market*, preventing him from benefiting from any subse*quent* rise.

If the risk from the straight *purchase is to be equated with* that from the option transaction *the buyer will have to impose* a selling order at £720 a tonne *in the present example. If the* market falls below this level his holding will be eliminated and he will simply be £80 a tonne poorer (and probably not very much wiser). But the option holder, though facing the prospect of the same £80 a tonne loss, will still be in the market. He can sit back and hope that the price climbs back above £800 a tonne (reducing his loss, if not actually giving him a profit) before the "last declaration date" on his option passes.

In order to benefit from this, however, the option buyer has agreed to put himself at a price disadvantage as he will not begin to make a profit until the price rises by more than the premium level he paid to the *granter of his option.*

A further attraction of option trading is the possibility of "jobbing" against the option. This ploy can give the speculator two (or more) bites *of the cherry by allowing him* to trade against his option with*out actually declaring it.*

If the previously mentioned *speculator buys a six month call* option in copper at £800 and *within two months the price has* risen to £1,000 he will (assum*ing that he foresees no further* rise) sell copper four months *forward at £1,000 a tonne.* There is no need to declare his *option yet as the £800 a tonne* buying price will still be available for another four months. He is now in the happy position of having a guaranteed £120 a tonne gross profit. But if his second view of the market also proves correct and the price declines substantially further profit-making opportunities can arise. Once the price has fallen below £800 he can sell copper against his forward purchase and still count on a gross profit of £120 after writing off the cost of the option. But the option is still intact *and a renewed rise to above £800 a tonne may present* the holder with still further opportunities to make money. *There is no reason why this* pattern should not be repeated several times during the life of the option, but most speculators would be quite happy to make a profit on the original deal and would regard further "jobbing" profits as unexpected bonuses.

Being a distinct section of the commodity markets the option market naturally carries its own vocabulary of technical jargon. Several of these have already been mentioned, such as: "*call option*" which allows the holder to buy the com*modity in question* at an agreed price during the prescribed *period;* "striking price," the agreed price, usually the ruling *price for the relevant delivery* position at the time the option *was granted:* "*grantor*," the writer or seller of the option *who undertakes to supply or* accept the commodity in *question at the striking price* within the agreed period; and "last declaration date," the last date on which the holder of the option *can call on the* grantor to execute the terms of the transaction. *In addition* the "put" option allows the holder to sell to the grantor at the striking price within the specified period; and the "double option" allows the holder to buy or sell (but not both) on the same terms.

Richard Mooney

Mining

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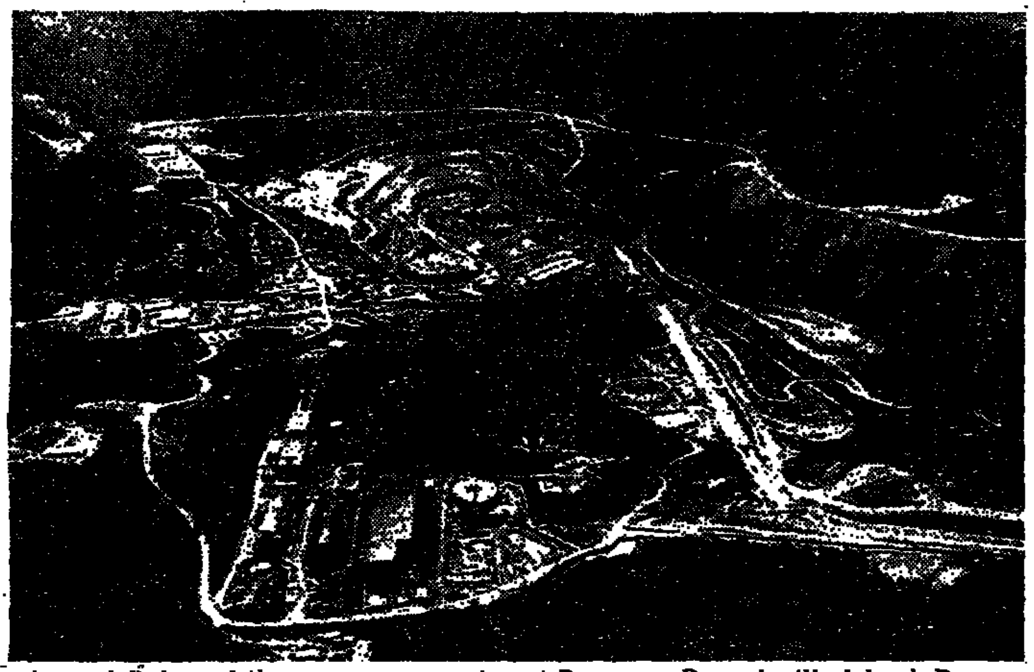
...nding a higher share of rewards; these are the ...sighted actions which led to the present slowing ...w mine development.

...ning companies, far less bankers, are just not going ...ovide to-day's kind of big ...ty without some guarantee ...ecurity for it and a fair ...rn. The point was firmly ...rmed by the recent halt ...development of Zaire's ...n-plus Tenke-Fungurume ...r project, largely because ...aising of further funds had ... precluded by political



An aerial view of the open copper mine at Panguna, Bougainville Island, Papua New Guinea.

...idea of the money needed ...ovide the metal of the ... has come from the recent ...ssion of 14 leading min... ...nd metal concerns to the ...ean Economic Commis... They estimate that over ...xt 20 years an investment ...58bn. (£34bn.) will be ...d to maintain European ...mption alone of alumi... copper, nickel, lead, zinc ...n.

... irony of the present new mining stalemate is that those who stand to suffer most as a result are the less developed countries whose admittedly understandable nationalistic ambitions could amount to cutting off the nose to spite the face. These countries need reasonably priced metal in the world and they often have potentially large resources of it which are remaining untapped.

What is the solution to the problem? The EEC submission suggested a co-operation agreement between the Common Market and the developing countries. This could provide the framework for an operating deal whereby any host government *stepping out of line* in regard to a mining venture could be submitted to pressure from the EEC, an important market for minerals. It was also suggested that the EEC could make available financial contributions to mining projects or provide guarantees for them.

Another possibility mooted was the setting up of an insurance scheme with the use of contributions from the mine financiers in proportion to the size of their investments. Such a scheme is operated by the U.S. Overseas Private Investment Corporation.

However, its weakness is that insurance benefits can only be claimed if the situation deteriorates to the *point that* backers of a mining venture have to surrender their investment and take the insurance compensation; there is no indemnity against limited erosion of benefits under an operating agreement.

Last year the then U.S. Secretary of State, Dr. Henry Kissinger, proposed to the UNCTAD meeting in Nairobi that the U.S. should establish an International Resources Bank which would participate with foreign investors and host governments in natural resource development agreements. It could be associated with the World Bank, mobilise capital for sound ventures and help to insure supplies of raw materials while aiming to moderate commodity price fluctuations.

As the Committee of the British-North American Research Association has put it in a recent report, "Some agreed basis, accepted by both producers and consumers, for attracting capital, ensuring markets and apportioning benefits, must be found if producer countries are to reap the benefits of effective development of their mineral resources for the years ahead."

It may be added that the required new deal for the mining industry, backed by some form of international muscle, cannot *be delayed much longer. If it is,* the world will face a very painful hiatus *during* the years when metal demand has outstripped existing output capacity and the new supermines are still working through their long lead times to production.

Kenneth Marston
Mining Editor

Commodity trusts grow in number

COMMODITY trusts have mushroomed in the past two years. In June, 1975, there was only one small fund. Now there are more than ten, worth together over £58m.

The investors in the trusts do not come from the world of commodities. They are refugees from disasters in property, the stock market and the national currency. As refugees they have made a cautious start in their new country and have bought with them many of the attitudes which prevailed in the old. Meanwhile, their hosts, the establishment in commodities, regard them with curiosity, bemused by their alien customs.

Foremost among these customs is that of buying the physical metal, putting the warrant in the bank and forgetting about it; not granting options against it or selling forward but just letting the metal lie.

After the frightening experience in the stock in 1974 they are scared of speculation and have little faith in any manager to do better than the market. Consequently they have bought units in trusts which are controlled by prestigious City houses which promise not to do anything too speculative.

The three biggest funds all fall into this category, although there are important differences among them. Warburg's Metals Trust, currently valued at £23m., is by far the most substantial. It is open only to pension funds, which normally commit only one or two per cent. of their funds into this novel investment medium.

Eighty pension funds have invested in the trust, including those of several international companies and the occasional nationalised industry. But none of them has invested more than 5 per cent. of its portfolio in this way. The major disadvantage, as far as they are concerned, is the lack of regular income which they are used to expecting from gilt-edged, shares and property investments. It is also the reason why insurance companies have taken less interest than pension funds or investment trusts. The actuaries rely on a flow of income to pay for liabilities as they fall due.

TOP TEN COMMODITY TRUSTS

SIZE FUND AND SPONSOR	Broker	Launch date	Gains since launch	Mid February: Est. copper stocks (tons)	Mid February: Est. silver stocks (ounces)
£23m. Metals Trust. S. G. Warburg	Brandeis Goldschmidt	24/7/75	33%	13,000	2,250,000
£13.9m. Old Court Commodity, Rothschild's	Merrill Lynch	30/1/76	30%	929	218,000
£13.0m. Save and Prosper Commodity Fund	R. Wolff and Gill and Duffus	31/12/75	47%	4,000	400,000
£109m. Wardgate, Various investments trusts	Commodity Analysis	8/12/76	5%	—	—
£1.3m. Surinvest Copper Trust	G. W. Joynson	17/12/75	41%	1,575	—
£1.0m. The Silver Trust, Surinvest	G. W. Joynson	6/5/76	7%	—	370,000
£0.9m. Commodities and Options	Commodity Analysis	22/12/75	83%	—	—
£0.6m. Atlantic Raw Materials and Commodities	Commodity Analysis	4/4/75		—	—
£0.3m. First Viking	M. L. Doxford	20/1/72		—	—
£0.2m. First Viking Double Option	M. L. Doxford	26/11/76	1%	—	—
£58.1m. Totals				19,504	3,238,000
LME stocks				618,000	26,970,000
Commodity trust stocks/LME stocks				3%	13%

Convenient

But not all the funds were created for the benefit of the institutions. Two of them, First Viking and Commodities and Options, have been used primarily as a convenient vehicle for investment by smaller clients of broking firms. These are run much more on the lines to which commodity brokers are accustomed. Physical stocks are rarely held and the positions are changed on a daily basis. Futures and options are the usual fare.

At the opposite extreme are the two Surinvest funds which invest purely in stocks of copper and silver respectively. They enable the small investor, who cannot afford to buy a single lot, to obtain an indirect stake in the metal of his choice. Some larger investors also go through the funds in order to avoid the bother of insurance and so on.

Recently, two more funds have come to the market. The first is a curiosity—a fund which exists solely in order to grant double options. Its creators studied the history of various commodities and decided that systematic investment in long-term options would have been successful in the past. The trouble with a system is that circumstances can change and make it ineffective. Nevertheless, it will be fascinating to see how the fund performs.

The second, Wardgate Commodity Fund, is significant because it represents greater acceptance of commodity market methods by investors with a stock market background. The brokers are Commodity Analysis, which already runs the Commodities and Options fund. This is one of the "dealer" type of funds and has been the best performer of all.

The Wardgate fund is geared for institutions but, like C & O, will adopt a much more active investment policy than the existing institutional funds. The sponsors are investment trusts, which presumably feel less nervous when insurance companies and pension funds about wheeling and dealing.

As a whole, the commodity trusts have got off to a good start. The timing of the launches (mostly at the end of 1975 and early 1976) was fortunate and all of them are showing a profit. The "dealing" funds have done better than the more passive ones and Save and Prosper, which has done best among the conservative trusts, is possibly the most active of them.

And while the funds have been doing well out of the commodity exchanges, the commodity exchanges have probably also been doing well out of the funds. A diverse collection of brokers appears in the accompanying table, all of whom doubtless appreciate the advent of commodity trusts. However, the brokers to the big funds probably wish that deals were more frequent, while brokers to the dealing funds wish that the funds were bigger.

The brokers may also appreciate the prestige and publicity that can be derived from advising a commodity trust. Certainly a high performing fund can provide a convincing testimonial to a broker's ability, thus helping him to attract more clients.

The effect of commodity trust investment on the markets themselves has so far been minimal. Producers, consumers, cash and carriers and speculators still hold the stage. But it is worth remembering that commodity trusts have only been going for one and a half years. If they can rise to a value of £58m. in such a short time, is it not possible that in, say, ten years' time they can be a significant force?

The turnover of the trusts is also minimal but that is a result of the predominantly passive investment attitudes. Their buying, when it does come, is good "quality." That is to say, it is generally not on margin and the stock will usually be kept for several months or more. In terms of stock, the trusts seem to have about 3 per cent. of the copper in the LME. This is probably an accurate reflection of the current small significance of the trusts in the market generally.

But among the less widely traded metals, the trusts are able to have some influence. In the case of silver, the trusts hold a full 13 per cent. of the LME stocks.

Over the past few months most funds have suffered some disinvestment. The institutions have preferred to put their money into the gilt market and the strength of sterling has eliminated one of the principal reasons for commodity investment. Nevertheless, institutional investment in commodities is likely to continue its upward trend. It represents a useful aid to portfolio diversification.

Meanwhile, the LME and other exchanges should welcome the development. If it does continue, the new money could provide useful liquidity to the markets and could help provide a buffer stock in those metals where councils or governments provide an inadequate buffer or none at all.

James Bartholomew

Special breed of investor

THE LME is a place to be avoided by the investor who seeks solace through the steady flow of interest payments from National Savings Certificates. Investment on the LME is all about capital gains, but to achieve those gains it is necessary to have steady nerves in the face of volatile prices, a clinical optimism, a healthy bank balance and a trusty broker.

To seek a quick fortune when resources are slender, to use the LME as an investment medium to prepare for retirement, to consider it as a haven for a life-time's savings, is to court disaster. Rewards there are but not for the uninitiated and not for the faint-hearted.

Certainly there are no particular mysteries about the basic forms of LME trading, but the commodity markets generally are accepted as being riskier than the Stock Exchange. And there are important distinctions between the two.

Shareholders tend to benefit if market prices move up and lose if they go down. Money may be made on the LME either way. But the metals trader will not have regular dividends. Rather does he take a view of which way prices will move and goes long or short accordingly. On the Stock Exchange investors have to pay the full price for the shares they buy within a specific account period. On the LME operators work on deposits initially, thus ensuring a much higher gearing.

There are important differences too on the time scales involved. The Stock Exchange investor may buy a share and hold on to it for as long as he desires, but on the LME contracts last for a maximum of three months (with the exception of silver, where seven months is the case) so that they must be balanced out with an opposite position before that time, unless delivery or ownership of the physical material is required.

Generally, the scale of operations on the LME will be financially larger than on the Stock Exchange. It is not possible to buy £50 worth of copper, for example, whereas it is possible to make small share investments. There are minimum lots for trading of 25 tonnes for copper, lead and zinc, of 5 tonnes for tin and of 10,000 ounces for silver.

It is quite likely in this case that the minimum financial provision will run into several thousands of pounds. One contract of lead covering one lot, with the cash price at £350 a tonne, entails a liability of £8,750 and the immediate provision of a deposit which is likely to be in the region of 10 per cent. of the total.

Options

Immediate outgoings may be less if an investor is dealing in options (which are covered in a separate article) and it is still possible to invest in LME metals with a small outgoing, if loss of control over the investment is accepted.

If, for example, an investor approached a broker and said that he had £500 to invest, he would be directed, in all probability, to an off-shore trust run from the Isle of Man or Jersey. If he had £1,000 a broker might put his money into a syndicate with funds of, say, £20,000.

When the sum available reaches £5,000 some brokers will start individual accounts, which are operated by the brokers themselves, giving an account to the client when a transaction is made on his behalf. In this case it is likely that the initial stake will be the total liability of the investor.

At sums of £10,000 and above investors should be able to find brokers who will accept accounts, which would be run by liaison between the brokers and the investor himself.

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LONDON METAL EXCHANGE IX

Little space for the minor metals

·TH THE London Metal change price movements ·ding to catch the headlines, is often not realised that ndon is also an important ernational centre for trad-; in a whole range of so-lled minor metals, which present a valuable slice of mmodity trading.

Apart from aluminium and :kel, there are the less widely own metals, like wolfram ungsten ore), antimony, smuth, cadmium, chromium, ercury, selenium and a host other metals and alloys aded by London merchants, any of whom are also embers of the Metal Exchange ealing in the base metals at e same time. Several of the inor metals like bismuth, idmium and selenium are by-roducts produced in the mining or smelting of the base ietals, copper, lead and zinc.

Obviously these links, and the iternational reputation of the ondon Metal Exchange as the ub of the metals trading world, re an important influence in iding London's role in minor ietal trading too. So has been he availability of sterling nance for merchanting deals of iis kind, although the recent ank of England curbs on the se of sterling loans for deals etween two third countries egotiated through Britain may ventually lead to at least some f the trade going away from ondon.

Already sterling quotations or the minor metals have radually been replaced by ollar quotations for international trading, with wolfram witching over only in December following the Bank of ngland's clampdown on sterng financing.

Nevertheless the Minor Metal Traders Association was able to ain some valuable concessions rom the Bank of England to nable traders to continue operting from London and bringing n valuable invisible foreign xchange earnings in the process.

It was hoped, and in some quarters is still hoped, that the London Metal Exchange facilities might be expanded to include one or several of the minor metals to provide hedging facilities for consumers against the sometimes violent price fluctuations that occur on occasion. In the past there have been moves to open LME markets in nickel, mercury and wolfram, while contract for aluminium is drawn up and ready to go, pending permission from the U.K. Government and a more co-operative attitude from the highly integrated aluminium producers.

But there seems little prospect of aluminium producers backing the proposed new market since it is feared it would have an unstabilising effect on the producer price system and bring few benefits. Nickel producers are equally opposed to the idea of a futures market—one has been tried and failed in New York—while it was found impossible to work out viable common quality standards for the proposed markets in tungsten ore and mercury.

These latter two metals do in fact have few price constraints, with values being decided purely on deals between consumers and producers and merchants on the free market in London and other centres.

Most of the other minor metals have a two tier pricing system — one official price quoted by the major world producers is used in direct supply contracts with consumers and usually covers the bulk of business done; the producer price as it is known is adjusted on occasions in accordance with changes in the cost of production and more usually to reflect the supply-demand situation.

At the same time there is the free market price, mainly operated by merchants, which comprises supplies from all other sources—from producers in the Communist bloc countries, consumers with surpluses to spare, secondary suppliers and often Western world producers either seeking extra sales or not abiding by the producer price for some reason or another.

In the cases of metals like aluminium, nickel and others with a few dominant producers, the producer price system can work well, although it is normally the free market covering residual supplies that shows changes in the underlying supply-demand situation more closely and clearly.

But in the case of wolfram and mercury there is no official producer price, in view of the diversification of supply sources that are reflected in the free market fluctuations.

In the past mercury producers did have an official ex-warehouse London price, but the spread of production away from the traditional suppliers in Italy and Spain, as well as the huge surplus that has built up because of the steep decline in demand in recent years owing to pollution fears and greater use of substitutes, have led to producers charging what they can get on the free market.

It is ironic that the biggest price slump in metals over the past decade has been suffered by mercury, which was the metal whose resources would be the first to be exhausted on a world scale according to the gloomy forecasts of future natural resources by the Club of Rome.

Predictions

As with so many predictions of this kind not enough allowance was made for changes in consumption patterns and the use of substitute materials or processes. Attempts by mercury producers to form a cartel arrangement with a minimum price below which no sales would be made have come to nought in the general surplus situation, aggravated by the economic recession, and producers have been forced instead to try to stop the price slide by cutting out uneconomic production or stockpiling surpluses at great expense.

Attempts to form a tungsten price agreement between producers and consumers under the auspices of the U.N. Conference on Trade and Development also appear doomed to failure—mainly because the steady price rises in the past 18 months even during the worst part of the economic recession have lessened the incentive for producers to achieve price stability, despite the volatile behaviour of the market in the past.

The world's leading producers of tungsten ore are both in the Communist bloc—China and the Soviet Union, although the Russians have been net importers in recent years while the Chinese have significantly reduced their exports restricting sales to higher and higher price levels. The rift between China and the Soviet Union, who used to trade directly at one stage, brought the Western world free market into greater activity handling increased Chinese sales that previously went to Russia, and Russian purchases that were previously made direct from the Chinese.

But in the past few years it is believed some kind of barter deal—nickel for tungsten ore—may have been concluded between the two countries and in any event Chinese exports have been diminishing in volume considerably.

This still leaves many producers, including developing countries, dependent on movements in the free market which has proved very volatile in the past. While the bid for a consumer-producer stablisation arrangement does not appear likely to be successful there have been more successful meetings of the Tungsten Producers Association, at which China has been an observer.

However, there is little incentive for any positive action to be taken at present in view of the steady rise in prices that has taken the tungsten ore market to historically high levels during the past 18 months with remarkable stability. Experience in other minor metals has not been so good for producers. The slump in demand, as a result of the economic recession world-wide, brought prices generally back down sharply from the high levels reached during the 1974 boom. In many cases price behaviour has little direct effect on supplies since the metals involved are by-products of other metals possibly affected by different supply-demand patterns.

Nevertheless, demand for minor metals often provides a bellwether of the general state of economic activity, and on that basis the recent general hardening in prices must be encouraging for the producers.

In Britain, the general switch to dollar quotations for minor metals and the change-over from Commonwealth to EEC import tariffs has caused some headaches to consumers forced to pay higher prices at a time when their rivals in other countries might well be paying less. For merchants, the formation of the Minor Metals Traders Association a few years back, and the introduction of its own standard contract terms and recently special agreement with the Bank of England, suggests that the ties with the Metal Exchange are loosening instead of growing closely as had been expected in the past.

J.E.

Investor

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All of this makes the choice of the broker of very great importance. But, here again, there is a distinction between the brokers in metals and the stockbroker. The metals broker will often be carrying out the jobbing function, which is a quite separate operation on the Stock Exchange.

A list of brokers who are members and associate members of the LME can be obtained easily from the LME and the presence of a company on this list is evidence of its financial security. What is less easy to ascertain, and this can only be done by direct contact between the potential client and the broker, is an estimate of the brokers' trading performance, a significant point to bear in mind if an investor's account is to be run by the broker.

It is on the whole best to avoid making any commitment to a small concern run from a telephone in the bedroom which is taking an investor's money and trading it through an established broker. There is not, in this country, any body like the Futures Trading Commission in the U.S. which seeks to protect the investor from the wayward practices of the bucket-shop operator.

The relationship between broker and client is based on mutual trust and confidence. This explains the widely differing degrees of security the broker will seek from his client. Some houses will demand bank references and evidence of financial strength before opening an account with a new client. Others will be content with the placing of a deposit and guarantees that warrants—the documents denoting ownership of tonnages of metal—will be handed over on request. Others again will keep the warrants in their care.

The brokers make their money from clients by commission fees. Just as the absence of any set margin of deposit makes for a variety of practices regarding the paid-up stakes of clients, so the commission rates vary from house to house, and from client to client.

The average commission probably works out at about one quarter of one per cent. on the roundturn. That is to say, one eighth of one per cent. on buying a contract and the same amount on selling it. But for very large contracts with regular clients, the commission could well be less. On the other hand some houses dealing specifically with the private investor might charge one half of one per cent. on the roundturn.

The level of these charges raises the question of the sort of return investors in metals should be seeking. Clearly this is an individual choice, but it seems likely that if he is not making between eight and ten times the amount he is paying in commission he is cutting his profit margins very fine.

The point is that like any other investment, trading in metals demands discipline. It is necessary to decide on the total size of any commitment and it is generally accepted that commodity investment should not exceed more than five or ten per cent. of the total investment portfolio. It is also necessary in the interests of peace of mind not to make any commitment which would be financially embarrassing if the whole lot was lost.

Losses

Brokers are obviously not out to lose their clients' money, so the investor should discuss with them the question of stop-loss points, at which time metals should be sold if the market is moving adversely against their position.

Losses can in any case be minimised by careful attention to the market. The investor is essentially providing speculative funds for the market and thus contributing to the liquidity which is needed for trade hedging operations. It therefore makes sense to keep trading within narrow limits during the months when industry involvement is traditionally at a low ebb, like the summer.

The investor should also keep in touch with the fundamental factors of supply and demand for the metals in which he is trading. But this sort of knowledge is not enough in isolation, for it is quite conceivable that the market prices will advance when all the supply-demand indications show there is a metal surplus. This means that he is thrust back on the technical analysis of the market which the broker can provide.

Trading in metals can, in short, be an extremely subtle business as investors learn the mysteries of techniques like saddles and pyramiding, on how to make money when prices are declining as well as when they are steadily moving up. But it is not the sort of investment that can be made and left alone, for the market has to be watched. And the investor should not be prone to insomnia.

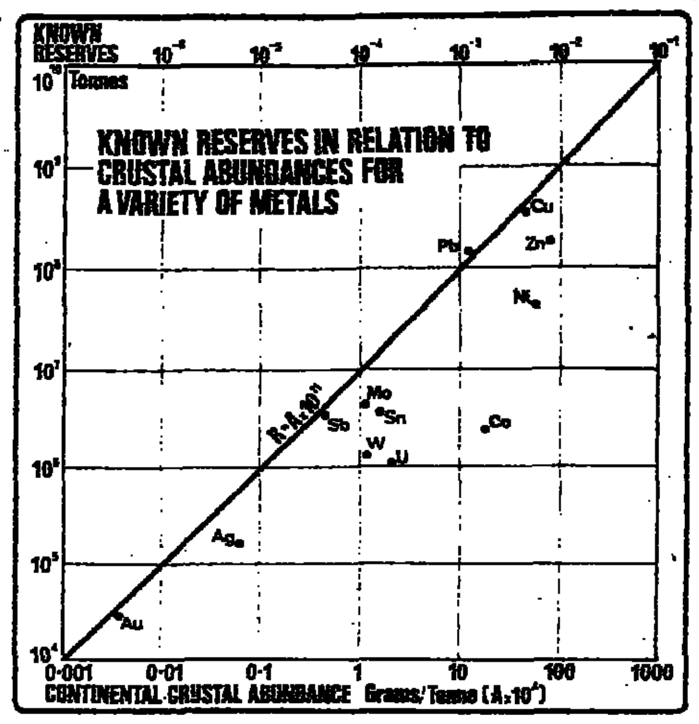
P.C.

Battle to satisfy future needs

METALS have a fascination for man that is difficult to analyse or define. The early quest for gold was not only a quest for wealth; it was also a quest for material with unique characteristics for the fashioning of symbols of authority, and for the adornment of rulers and their consorts. This need of society for materials with special properties persists and provides the driving force for the present metal extracting, metal fabricating and metal using industries. As a measure of this need, in technically advanced nations about three quarters to one tonne of metal is now used per head of population per annum.

Some two thousand years ago seven metals—copper, silver, gold, iron, lead, tin and mercury—were known to man and from these perhaps ten alloys or mixtures were made. We now know from work on the periodic classification table that in the sequence from hydrogen to uranium about 80 of the 92 elements exhibit metallic properties in the solid state. Of these elements about 40 are in common use nowadays, providing the bases for alloys—for example, iron, copper, aluminium metal and titanium: as special alloying additions to the bases (manganese, molybdenum, silicon and tin); or for conferring special properties on a base as metallic coatings (nickel, chromium, zinc and tin).

Metals seldom occur in nature in the uncombined or native form. They are notoriously reactive with water, oxygen and sulphur, corrode readily and are usually found as oxides or sulphides. Two types of natural concentrations, or ores, of metalliferous minerals are found. One kind is the sedimentary deposits developed by weathering of rocks and subsequent movement of the weathered products by streams and rivers, leading to extensive horizontally stratified deposits. It is no coincidence that the ores of the two most widely used metals, iron and aluminium, are of this type, for the ores are rich in metal and easy to find.




Reading out the day's official prices at the London Metal Exchange.

The other concentration process develops from the primary solidification of the earth's crust. Hot vapours and liquids containing metals in solution are forced upwards from still molten rocks and react with existing solid rocks, particularly where geological faults have occurred, filling the faults with metalliferous minerals to give veins or floats. Such veins are difficult to detect and difficult to mine. Lead, zinc and copper are examples of metals produced from these types of deposits.

If we ignore for a moment the problems of recycling metals, it would appear that in mining metalliferous minerals, and then taking metals from them, we are drawing on a wasting asset. This is the situation which some people seize on to cry "doom!" But are things as bad as they would make out?

We know from the work of nuclear physicists that atoms with nuclei having a mass about half-way between that of hydrogen and uranium are the most stable. As a result, when the atoms composing the earth were first formed the tendency was for those atoms around the middle of the periodic table to be produced and this is where most of the useful metals are found. This is reflected in the continental crustal abundance, that is the average percentage of a particular element found in the earth's crust.

Abundances

These crustal abundances for some common metals are given in the table below together with the total mass of metal available if mining is carried out to a depth of 3.5 km. However, with the known mining and bulk mineral processing methods not all of these metals could be recovered. For those metals where it is possible to assess the known reserves with some accuracy it is found that these are related to the crustal abundance by the expression

$$R = A \times 10^{11}$$

where R equals known reserves in tonnes and A is the crustal abundance expressed as a percentage.

From the use of this formula it is possible to assess reserves for all the metals, and these assessments can be compared with the accurately known reserves. The divergances for a variety of metals are shown graphically above, and this would indicate that there may well be extensive deposits of cobalt, tungsten and uranium still to be discovered.

Taking the most optimistic estimates of improvements along traditional lines in exploration techniques in mining and mineral processing, the reserves R are probably about three times those given by the above formula and these values for a range of metal are also given in the table.

The problem now is to assess how quickly these reserves are going to be consumed. If we divide the known reserves by the annual consumption we are almost bound to get the wrong answer, for the actual reserves are greater than the known reserves, while improvements in technology will increase the available reserves. Alternatively, increases in the population and increases in their expectations will increase consumption.

A further influence on consumption is that of recycling and the substitution of one metal for another and with such a wide variety of metals available, this is a real possibility but difficult to quantify.

The safest way of predicting resource life is to assume that the demand for a metal will grow because of population growth, social aspirations and technological change, but that demand will then decrease as shortages develop. On this basis it is possible to determine the dynamic resource life index for a variety of metals with the results shown in the table on the next page.

Before becoming too alarmed at the data given in this table, a number of qualifications have to be made. No account has been taken of the possibility of recovering metals from sea water or from the sea bed, while it has been assumed that the same basic types of ores will be used and that recycling patterns will remain the same.

Sea water contains appreciable quantities of metals and during the last war was used for the production of magnesium. The total amounts of different metals available in the oceans is given below. While these amounts seem small in relation to total amounts available in rocks, if assessed in relation to the optimistic amounts of recoverable metals from rocks (R'), sea water could become a useful source of some metals at the lower end of the table below which are also those at the upper end of the table on the next page. The rocks composing the sea bed have approximately the same crustal abundances as the continental crust, but prospecting and mining from the sea bed poses formidable problems and therefore these possibilities will be ignored.

However, a further source of metals is the manganese nodules recently discovered on the sea bed. Besides the manganese, which is the major metallic constituent, there are appreciable quantities of iron, nickel and cobalt and minor amounts of lead, zinc, molybdenum and vanadium in the nodules. Just from the Pacific Ocean nodules alone it is estimated that the metal content is about 800 times the known reserves of manganese, forty times the known reserves of nickel, twenty times the known reserves of cobalt and copper and ten times the known reserves of lead and zinc.

Apart from the almost insignificant amounts of metals lost through nuclear disintegration, the old statement that atoms can neither be created nor destroyed is still true, so that although metals may be taken from the earth, and fashioned in various ways, they are not lost—they are just redistributed. This is a completely different situation from that of energy reserves, for when natural gas, coal and oil are burnt the products of combustion are of little interest to anyone and the potential energy is dissipated.

Recycling

The recycling of metals influences significantly the amount of new or virgin metal required. In Britain secondary recycled metal accounts for about 65 per cent. of the lead, 50 per cent. of iron and steel and 40, 30 and 25 per cent. respectively of the annual consumption of copper, aluminium and zinc.

These values are influenced by the technical problems of scrap recovery and refining and the processing costs relative to that of virgin metal and also the time for which metal components stay in service. Considerable amounts of copper and aluminium are used in the building trades and hence tied up for many decades. If during that period there has been a growth in demand, the scrap arising will now only form a smaller proportion of the total consumption. In reality a higher proportion of the metal put in service at any one time is recovered than is usually appreciated from the data given above.

Taking all these factors into account it would appear that as the conventional sources of minerals become exhausted market forces will lead to price increases and this in turn will lead to the exploitation of less conventional resources, increases in the amount of the metal recycled and, where possible, substitution.

There are, however, some metallurgical ironies revealed by the data in Table 2. One of the major uses of zinc is for the galvanising of steel as protection against corrosion where the zinc acts as a sacrificial coating and is leached away by rain water and hence lost. The remaining steel is then recycled. The resource life index for zinc is forty years, while that for iron and hence steel is 626 years. Is it really sensible to protect steel with zinc?

Perhaps a major task of metallurgists over the next few decades should be to assess what are the critical uses of metals in relation to technical requirements and difficulties and substitution. Would it then be possible to limit the use of those metals having a low dy-

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THE RESERVES OF METALS

Metal	Continental crustal abundance (A) %	Metal in outer 3.5km of earth's crust Tonnes	Optimistic estimate of recoverable metals (R') ($3 \times A \times 10^{11}$) Tonnes	Metals in the oceans Tonnes
Silicon	29.0	43.5×10^{16}	8.7×10^{12}	4.7×10^{12}
Aluminium	8.3	12.5×10^{16}	2.5×10^{12}	1.6×10^{10}
Iron	4.8	7.2×10^{16}	1.4×10^{12}	1.6×10^{10}
Magnesium	2.1	3.2×10^{16}	6.3×10^{11}	2.1×10^{15}
Titanium	0.53	8.0×10^{15}	1.6×10^{11}	1.5×10^{9}
Manganese	0.10	1.5×10^{15}	3.4×10^{10}	3.0×10^{9}
Zinc	0.0081	1.2×10^{14}	2.4×10^{9}	1.6×10^{10}
Chromium	0.0077	1.1×10^{14}	2.3×10^{9}	7.8×10^{7}
Nickel	0.0061	9.1×10^{13}	1.8×10^{9}	3.0×10^{9}
Copper	0.0050	7.5×10^{13}	1.5×10^{9}	5.0×10^{9}
Lead	0.0013	1.1×10^{13}	3.9×10^{8}	4.6×10^{7}
Tin	0.00016	2.4×10^{12}	4.8×10^{7}	5.0×10^{9}
Tungsten	0.00012	1.8×10^{12}	3.6×10^{7}	1.5×10^{8}
Molybdenum	0.00011	1.65×10^{12}	3.3×10^{7}	1.6×10^{10}
Gold	0.00000035	5.2×10^{9}	1.0×10^{5}	6.0×10^{6}

A complicated game of competing interests

BUSINESS is without risk. each business endeavours liminate the chance of loss. concern using raw erials is automatically part a complicated game where peting interests play against 1, influenced by the vagaries upply and demand and the lability of finance. Ready plies may be quite different n stability of price in a ation where producers seek imum returns and con- iers seek minimum outlays.

or the metals industry in widest sense, the use of ging on the LME is an empt to keep risks at the est possible level. It is often n as a form of insurance but s more accurately a system book balancing, where the ements in one market are d to counteract the move- nts in another in an mpt to limit exposure to rked price fluctuations.

imply, the buying or selling metal in a physical sense is et by the taking of a reverse ition on the terminal market, LME, so that losses on the may be balanced by gains the other. It is an exercise arbitrage designed to estab- a margin of profit regard- s of the way the metals prices y be moving.

merchant, for example, ght buy a quantity of metal rseas at the current prevail- LME price and arrange for transport to London. Having npleted this transaction, he uld sell the same quantity of tal forward on the LME.

At the time of the metal's ival in London he sells ectly to his customer at the n prevailing LME rate. On LME he closes his position the purchase of a contract to the quantity of metal he ginally sold forward.

t is quite likely that market ces will have changed in the erval between the two pairs transactions. If there had n a fall of £10 per tonne, en the merchant would have lost that amount on the physical sale. On the LME, however, the merchant would be able to close his position by buying at the prevailing settlement price, £10 less per tonne than the sum of his original forward sale.

A loss in the physical market has therefore been balanced by a profit on the terminal market and the merchant has broken even by playing one market against another. Had the price, on the other hand moved higher in the interval between the two pairs of transactions, he would have gained on the physical transaction but lost on the terminal market transaction. The net result would nevertheless be the same.

That is an instance of a selling hedge in its most basic form. A buying hedge works in opposite fashion. And it is, of course, possible to work out endless and complex variations, using different markets simultaneously, carrying over contracts and so on. But the basic principle remains the same.

PROCESS OF A SELLING HEDGE

THE PHYSICAL TRANSACTIONS	THE LME TRANSACTIONS
Merchant buys 100 tonnes of lead at current LME settlement price of £320 a tonne.	Merchant sells forward 100 tonnes of lead for delivery on date of physicals arrival at current forward price of £340 a tonne.
The lead arrives and merchant delivers to his customer at the current LME settlement price of £330 a tonne.	Merchant closes his forward position by buying 100 tonnes of lead at the current LME settlement price of £330 a tonne.
The result is a loss of £10 a tonne.	The result is a profit of £10 a tonne.

The net result by balancing one transaction against the other is break even.

Growth

The growth of hedging facilities on the LME has been basic to the development of the market and the maintenance of its international position. One historian lists hedging, with the introduction of standardised contracts for dealing and the growth of speculation, as being a fundamental factor in the evolution of the LME.

And, indeed, the three are linked. The use of a standardised contract permits the dealing in paper so that transactions can be completed without the presence of physical metal. The growth of speculation provides the source of funds through which the metals trade can conduct hedging operations. The speculative funds are the risk money which provide liquidity for the trade.

The international character of the LME's membership testifies to the importance of the hedging facility for the international mining and metals industry and supports the comment of one broker: "The LME exists because of trade hedging. The rest is speculation."

For all that, it remains impossible to specify exactly the amount of hedging that takes place on the market, proportionate to total trade. Tonnages of metal that change hands are reported daily, but the reason for each transaction remains a matter between broker and client. Further the line between hedging and taking a speculative position becomes blurred even further because those who do hedge may well be taking positions on the market as well.

Nevertheless the amount of hedging reflects the amount of physical metal changing hands and is therefore a mirror of the international economic situation. It is inevitably greater at a time of economic expansion.

The indications are that hedging is currently at a fairly low level. Metal stocks were run down in 1974 and since then there has been a tendency for the metal users to work on a hand-to-mouth basis in the face of sluggish industrial activity. The build-up in metal stocks, both at the LME and elsewhere in areas like the U.S. and Japan, is evidence of the relatively small amount of metal held in the trade and subject to the price movements hedging operations are designed to protect.

There is, in any case, a difference in the amount of hedging which takes place between the LME metals. Inevitably copper is the most extensively hedged, a natural consequence of the fact that it is the metal most heavily traded and the fact that the LME cash price is the reference used in the costing of most contracts between suppliers and consumers outside the U.S.

At the other extreme, there is little hedging interest in silver. Nor is there much point in merchants or fabricators using the zinc market for hedging. This is because of the European producer price which changes only infrequently. There is an important result springing from this.

Given the fact that only a residual amount of physical zinc is traded on the LME, the absence of hedging leads to a market which is very vulnerable to speculation and where the price can move violently. Indeed, an excessive build-up of speculative activity led to a temporary ban on non-trade transactions in the middle of 1976.

Contracts

No figures are available to quantify the use of the different metals for hedging. Nor are they available to illustrate the fashion in which the different sections of the industry use the LME. But it is possible to make some generalisations.

On the production side, the mines make more use of the LME when prices are advancing than when they are retreating. Their sales contracts are often worked out on the basis of average LME prices, calculated over terms of perhaps one or three months. When the market is on a definite upswing, they can register the difference between the price they receive for actual physical sales and the price obtaining on the market.

London brokers have noted, for example, that the mines were active during the upsurge in price during 1973. During the succeeding downturn, however, the situation was very different. The mines were not anxious to be left with exposed positions on the market when prices were low and, in some cases not even covering the costs of production.

As far as consumers are concerned, the merchants and fabricators use hedging the most extensively. Hedging was actually started by merchants wishing to protect their shipments, stocks and future commitments. The same needs exist to-day.

Scrap merchants are not in quite the same position. Although they are known occasionally to use the market they are faced with one serious restriction. Scrap metal prices tend to move independently of the LME prices for primary metal.

The fabricators were drawn to the market as its facilities developed in the late 19th century. They buy metal in its primary form and carry out first stage processing. In the case of copper, they buy wirebars and cathodes and turn them into the shapes needed by their customers: shapes sections like sheet, strip, tubes and rods. Buying often on a monthly quota basis from producers, they are as exposed to price variations as the merchants.

Manufacturers, who purchase metals after the first stage of processing, are on the whole reluctant to use the facilities of the LME for hedging, often preferring to accept fluctuations as a prelude to pass increases in prices on to the ultimate consumer.

The reasons for the lack of uniformity in approach to the LME among consumers are varied. In the first instance, there is some ignorance of the facilities available, and where large stocks are not carried there is reluctance to indulge in the expense of employing a specialist to watch the markets when the main search for profits is inevitably conducted elsewhere.

Some consumers do not feel there is any need to hedge on raw material prices if their sales are made on a back-to-back basis, where they are buying what they have in effect already sold in advance.

Supporters of the LME, and indeed those who are active on it, do not find this sort of reasoning convincing. The failure to hedge, they argue, is a dangerous speculation in itself. The LME is not, after all, a haven of gamblers but a centre of trading, created by those in the trade.

P.C.

Needs

CONTINUED FROM PREVIOUS PAGE

amic resource life index to these critical applications or to where recycling is comparatively easy and efficient? There are those who would argue that normal market forces will take care of this situation. It is to be hoped that they do, for any legislative action would need to be on an international scale and difficult to control.

One thing certain to happen, in view of the data shown in the table on the right is that the price relativities between metals will change very markedly over the next fifty years.

ESTIMATED LIFE TIME OF METALS

Metal	Dynamic Resource Life Index (years)
Zinc	40
Gold	60
Tungsten	75
Lead	87
Copper	116
Silver	128
Molybdenum	134
Mercury	135
Tin	195
Aluminium	225
Chromium	267
Nickel	270
Manganese	492
Iron	626
Cobalt	685

Index

What of the longer term future? With the extent of metallurgical knowledge at the moment, there would be no difficulty in providing metals and alloys to meet present engineering needs if we were limited to the use of those metals with a present dynamic resource life index of about 500 years, but it is assumed that aluminium is in this category. This is a fairly safe assumption for the dynamic resource life index of aluminium is based upon bauxite as the primary raw material, and only slight improvements in technology or price differentials are needed for a very much wider range of aluminium-bearing materials to be considered as workable ones, and this should be judged in relation to the high crustal abundance of aluminium.

There are two critical long-term issues. The demand for metals is clearly linked to population growth and increasing standards of living. If population growth can be limited, particularly in regions where potential aspirations are greatest, then there should be no difficulty in providing the metals society requires.

The other critical issue is that of energy. The most optimistic estimates of energy reserves based on fossil fuels give a dynamic resource life of 300-500 years. If society needs metal then, as we have seen, there is no real shortage of metal atoms—all that is required is abundant energy to concentrate and then liberate them from the other atoms they wish to be associated with or have become associated with as a result of man's actions. Nuclear power derived either by fission or fusion is the real long-term hope if the earth is to remain populated by metal using human beings.

Professor J. Nutting
President-elect, The Metals Society

The language of the commodity markets

ACTUALS: The physical commodity itself as opposed to hedging operations made by the trade to reduce their risk of being exposed to price fluctuations. The term is very seldom used in relation to the LME where one more commonly refers to "physical" for the metal.

ARBITRAGE: This is a very professional operation which involves a purchase in one market with the simultaneous sale of an equivalent quantity in another market (for example, the LME and The New York Commodity Exchange); and the necessary foreign exchange transaction to protect against any change in the parities between the two currencies involved. There are many complexities in this operation involving perhaps differing fundamentals affecting the commodity on one market against those influencing the other: differing interest rates affecting the contangos on the two markets; and variations in the structure of the two currencies involved (for example, the ever-changing forward discount for sterling against the dollar).

ASSAY: The independent evaluation of the conformation of a metal. LME registered brands must conform to a typical assay for the brand in question.

BACKPRICING: A consumer establishes his contract with a producer which commits him to receive a certain limited tonnage—usually for the next 12 months—in monthly shipments.

Where copper is the metal contracted the price is only established around the time of shipment. Outside the U.S. the price used by producers is currently the LME settlement price. Each day's settlement price is valid until noon the following day, and the consumer has the option of "fixing" a proportion of his monthly quota on that price up to that time.

This "price-fixing" operation is referred to as backpricing.

BACKWARDATION: The situation when the cash or spot price of a metal stand at a premium over the price of metal for delivery in three months' time. A backwardation occurs when nearby supply in a metal is tight. The size of the backwardation is determined by the supply/demand factors on the nearby positions related to the same factors on the forward position. The backwardation is also referred to as the "back."

BASIS PRICE: The price agreed between the seller and the buyer of an option at which the option can be exercised. This price is also called the "striking price." It is normally the current market price of the metal.

BEAR COVERING: The closing of a short position.

BEST ORDERS: Buy or sell orders which the LME ring dealing broker executes on the market at what the dealer judges to be the best available price. It is also termed buying (or selling) "at best."

BID: The price the buyer is prepared to pay.

BORROWING: Derived from "borrowing metal from the market" which is achieved by buying a nearby date and simultaneously selling a date further forward. (See also Cash and Carry.)

BROKER: One who puts buyer and seller in touch with one another for a fee and does not act as a principal. By extension, ring dealing members of future markets are often called brokers, especially in the U.S.A. However, on the LME ring dealing members act as principals, though they are still usually referred to by clients as brokers.

CALL OPTION: An option which gives the holder the right to buy metal from the seller of the option at the basis or striking price. A call option is bought in the expectation of prices rising and limits the buyer's risk to the premium paid should his view of the market prove to be wrong.

CARRYING: Carrying is the general term used for both "borrowing" and "lending" on the LME. It is also used to describe a borrowing operation which results in physical metal being carried in an LME warehouse by the borrower.

CASH AND CARRY: When a contango exists, the premium of the forward position over the prompt generally reflects costs of storing, insuring, and financing for that period. When metal is in surplus the contango may widen to the point where banking operations are attractive. Capital is invested by buying cash metal and simultaneously selling forward where it yields, after costs, better returns than the prevailing money markets. (See also Borrowing.)

CLEARING HOUSE: An independent body providing clearing facilities for some futures markets (that is those that do not operate as a principals market).

CLERK: An assistant to an LME ring dealer. He or she may be "authorised" (empowered to deal in the absence of the dealer) or "unauthorised" (empowered only to record and check transactions).

COMEX: The abbreviation for the New York Commodity Exchanges. Comex is often referred to as meaning the prices of either copper or silver in New York, for example, "Comex is 66 cents" meaning the Comex copper price is 66 cents a pound.

COMMISSION HOUSE: An essentially U.S. term. It refers to a company introducing client business to a ring dealing broker. Many companies introducing business in London as commission houses are themselves members of exchanges in the U.S. and vice-versa. Individuals acting in this capacity are often referred to as half-commission agents — so called because they are rewarded for introducing the business and maintaining local contact with the client by a half share of the ring dealer's commission.

CONTANGO: The situation when the price of a metal for forward or future delivery stands at a premium over the cash or spot price of the metal. Contagos occur when there is a plentiful supply of the metal. The size of the contango does not normally exceed the cost of financing, insuring and storing the metal over the future delivery period. (But see Cash and Carry.)

COVER: The balancing of an open position by buying or selling on the LME. It is also known as "cover in."

CUSTOM SMELTER: A smelter which depends for its intake mostly on concentrate purchased from independent mines rather than its own captive main sources, or on scrap. This type of operation has become more important in recent years. (See also Refinery.)

DAY ORDER: (G.F.D.): An order placed with a broker which is valid throughout the rings and kerbs during the day on which it was placed. If not executed that day, it is automatically cancelled. If valid for all markets (that is pre-market, lunchtime, evenings) any instruction should clearly state "all markets." The order can then be executed at any time of the day.

DECLARATION DATE: The date on which the buyer's right to exercise his option expires.

DELIVERY DATE OR PROMPT DATE: The date on which a metal has to be delivered to fulfil the contract terms.

DEPOSIT: The initial outlay of money by a client which is required by his broker to justify the opening of a futures position. The size of the deposit is usually 10 per cent. of the value of the contract. (See also Margin Call.)

DOUBLE OPTION: An option which gives the buyer or taker of the option the right to either buy from or sell to the seller or giver of the option at the basis price.

END CONSUMER: A company in whose hands the identity of the fabricated metal is finally lost in a more complex product, for example, a refrigerator, motor car, transformer, etc. Some of these companies also have fabricating subsidiaries. (See also Fabricator.)

FABRICATOR (sometimes referred to as semi-fabricator): A company which transforms refined metal (and sometimes scrap as well) into semi-fabricated products, for example, wire, cable, tubes, strip, rods for sale to an end-consumer.

FORCE MAJEURE: The clause in a metal supply contract which allows either the seller or the buyer not to deliver or take delivery of the metal concentrate or scrap under the contract due to events beyond his control. Events justifying the declaration of force majeure vary widely and include unavoidable export delays in producing countries to strikes at the customer's plant. There is no force majeure clause in an LME contract. Customers affected by a force majeure by a producer or refiner can always turn to the LME as a source of metal. Equally suppliers can deliver their metal to the LME if their customers declare force majeure.

GOOD TILL CANCELLED ORDER (G.T.C.): An order to buy or sell which is valid every market day during rings and kerbs (or during the entire day if specified) until cancelled by execution or client's instructions.

HEDGING: The establishment of an opposite position on a futures market from that held and priced in the physical commodity. Without hedging, the physical position would be at risk to price fluctuations.

INTEGRATED PRODUCER: A producer of metal who owns mines, smelters and refineries, and, in some cases, fabricating plants.

INTER-MARKET: The period between the close of the morning kerb and the opening of the afternoon ring when LME members conduct inter-office dealing by telephone. This period is important because this is when Comex opens.

KERB TRADING: This is a period of 15 minutes at the end of each session (am and pm) where all metals are traded simultaneously around the ring. Kerb trading is often expressed simply as "on the kerb" or "kerb." The term kerb comes from the early history of commodity futures markets when trading after hours was literally conducted on the kerb of the street.

LENDING: Selling metal at a near date and simultaneously buying it back on a forward date, thereby extending a long position.

LIMIT: In some futures markets (but not on the LME) there is a limit to the amount prices for a commodity can rise or fall during a given period of time. Once the limit movement is reached, trading is suspended until the time period is expired and trading is resumed.

LIMIT ORDER: An order placed by a client to buy or sell at a specified price.

LIQUIDATION: The closing out of a long position. It is also sometimes used to mean the closing out of a short position but this is more correctly referred to as covering or covering in.

LONG: An open purchase futures position. It also means

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Warehousing network

ALTHOUGH LARGELY unsung, the whole operation of the London Metal Exchange hinges on a string of over 50 European warehouses at places as diverse as London, Liverpool, Newcastle, Swansea, Avonmouth, Birmingham, Manchester, Hull, Glasgow, Amsterdam (silver only) Rotterdam, Hamburg, Antwerp and Bremen. It is in these warehouses, all owned by private companies but strictly vetted and approved by the committee of the London Metal Exchange, that the LME contract takes physical shape.

Metal arrives at the warehouse basically from four sources — refiners, merchants, producers and consumers. Some of this metal, especially from consumers, is from surplus stocks held in times of slack demand. As part of the total LME service, a holder of surplus metal can place this in an approved warehouse, sell it as "cash" metal on the Exchange, and collect his money the next day.

When the metal arrives at the warehouse, copper, lead and zinc are divided into 25 tonne lots and tin into 5 tonne lots. Each lot is covered by a warrant drawn up by the warehouseman. Silver for delivery to LME approved vaults and warehouses is packed in lots of 10,000 troy ounces. All warrants list the type of metal, its exact weight and number of pieces, and the warehouse and its location. The warrant is in fact the unit of currency on the LME. It is used as a bearer document for financing the stocks held in the various warehouses and is a well-recognised form of collateral in the banking world.

Registered

All metal delivered into approved LME warehouses must be a registered LME brand. This is to ensure that the metal received will always meet the standard LME contract's dimensional and purity specifications.

Taking standard zinc as an example, the metal listed under this contract must be "produced by distillation or electrolysis" and must be zinc of minimum 98 per cent. purity. It must also be delivered to the warehouse in slabs, plates or ingots weighing not more than 55 kgs. each.

Brand registration in itself is a pretty stringent exercise. A producer wishing to register his own brand of copper, for instance, must first submit his application through an LME subscriber and give an undertaking that the brand he wishes to register will conform to the particular quality and class demanded, and that the quality will be maintained in accordance with the samples submitted for analysis. This analysis is undertaken by two official assayers on the LME's approved list. At the moment the warehouses receive over 60 brands of lead from producers throughout the world, 80 brands of zinc, 50 of tin, and over 130 brands of copper wire-bars and cathodes—in addition to some 70 brands of silver.

So, although the prime function of the warehouse is to ensure that each lot of metal to be put on warrant is of the correct weight and number of pieces, and that it is an approved LME brand, the actual warehousing operation is in fact much more sophisticated than the act of simply building large lumps of metal into neat piles. Many of these specialist companies use their expertise not only to stack and sort, and repack certain metals, but undertake ship chartering and provide full transit facilities and a whole range of other ancillary services.

The warrants the warehousing companies draw up represent entitlement to one lot of a particular metal. The LME broker delivers the warrant against payment by the client up to 14.30 hours on the prompt or settling day. The delivery points for the metal are at the seller's option, but the system has a good deal of flexibility, inasmuch as brokers are constantly changing warrants from one delivery point to another to suit the buyer. A purchaser may normally use a warehouse near his factory when collecting his metal. But if this warehouse does not have the particular brand he requires, it is usually possible to exchange warehouse warrants for metal in another conveniently situated warehouse.

The owner of the warrant is responsible for paying the rent for the metal stored. This varies slightly from warehouse to warehouse but it is still relatively cheap at about 15p a ton a week at the present time. Insurance is also the responsibility of the owner of the metal but this is also a fairly modest expense on the grounds that the material covered is virtually indestructible.

Prompt

Apart from its function of supplying industry with its prompt metal needs, the warehousing system ensures continuity of supplies despite the pressures of outside forces. Adequate stocks in LME warehouses ensure the needs of industry are met instantly. Several years ago, at the time of a serious U.K. dock strike, the existence of Continental warehouses proved to be of vital importance as European consumers were still able to obtain their marginal requirements of metal. Another extremely significant point is that in the long history of the London Metal Exchange deliveries of metal against LME contracts have never been delayed by production losses at source—whereas mining companies, in their contracts, have a "*force majeure*" clause in which they reserve the right to delay delivery of metal if they run into production troubles.

Finally, apart from their unique basic service to the industry, the stocks held by the warehouses act as a barometer to the world supply and demand situation through regular stock returns received from the warehouses and published once a week by the LME. Also, when stocks of most metals, particularly copper, were at unusually high levels last year (copper still is) the LME's approved warehouses acted as an industrial safety valve by allowing consumers to run down their own inflated stocks and to rely on the warehouses for additional supplies as and when needed.

Ian Dunning

LONDON METAL EXCHANGE XIII

Aluminium prospects

[U]NEXPECTED new element [has be]en brought into the calcu[lation]s of the world's aluminium [produc]ers this month by the [e]ffects of the U.S. weather.

Like all other manufac[turers], the U.S. aluminium pro[ducer]s have been affected by the [cold] on the East coast which [has d]isrupted power supplies [and c]ommunications, and even [more] importantly, hit the opera[tions] of their customers.

[Th]e industry's problems on [the W]est coast of the U.S. look [poten]tially much more serious, [howe]ver, and could have an [impac]t on the aluminium [marke]t in Europe and through[out th]e rest of the world as the [year] progresses.

[In] the West the problem has [been a] lack of water for hydro[-electr]ic power generation after [one] of the driest winters on [recor]d. Some 25-30 per cent. of [the U].S. aluminium industry is [locat]ed in the North Western [State]s and, in particular, [Wash]ington, a region to which [they] were drawn originally by [the a]vailability of cheap power [sou]rces.

[Sin]ce before Christmas, how[ever], the main supplier, the [Bon]neville Power Authority, has [been] unable to meet fully its [com]mitments, and although [nego]tiations have been taking [place] to secure extra supplies by [draw]ing the lakes down even [furth]er, using water due to be [u]sed later in the year, and buying in supplies from [othe]r areas, the first shutdowns [are n]ow beginning to take place. [Alcan], the biggest U.S. pro[duce]r, has closed one line out [of fi]ve at its Vancouver plant in [Was]hington, and Kaiser, [anot]her leading producer with smelters in the area, has [said] it is only a matter of time [befo]re it follows.

[Ot]her companies are likely to [do t]he same and unless there [is n]ow an unusually wet sum[mer] or spring, or some [unex]pected easing of the U.S. [ener]gy situation, the shutdowns [see]ms likely to be prolonged, [poss]ibly lasting until next year. [Acc]ording to Stewart Spector, a [lead]ing aluminium analyst with [Opp]enheimer of New York, the [lack] of power threatens to reduce capacity in the U.S. aluminium industry by some 350,000 tonnes this year or roughly 7 per cent. of U.S. capacity. With the U.S. accounting for just under half total Western world output, a reduction will clearly have implications for supply and prices of aluminium over the next year, and the effects could be felt in Britain and Europe as well as in the U.S.

Stocks of aluminium held by primary producers around the world are likely to provide a buffer for some time, and actually began to rise again in the fourth quarter last year as the industry paused in its recovery from recession. Total stocks at the end of the year stood at 4.07m. tonnes after declining from 4.8m. tonnes at the end of 1975 to a low in August last year of just over 4m. tonnes. The industry also has some spare capacity closed down during the recession, and still not reactivated, which could now be brought back into commission. Kaiser has pot lines down at two U.S. smelters, but as Steve Hutchcraft, vice-president of Kaiser in charge of raw materials and smelting, points out, heavy costs will be incurred in bringing pots back into operation in one part of the country, while closing others down elsewhere.

The latest cutback comes, furthermore, only after the settlement of the last in a series of strikes at Alcan stretching back to last June, which has resulted in the loss of about 350,000 tonnes of metal from the company's Canadian smelters, and at a time when poor prices and weak demand have meant very little new capacity is currently being installed. Thus although the relatively high stock levels means that supply will be available this year, the metal shortage which was being predicted for 1978-79 looks as though it will be brought forward.

The result over the medium term will almost certainly be a rise in prices which have been moving up around the world, but not as quickly in the U.S. as the producers had been hoping. With economies emerging gradually from recession total shipments rose last year in the U.S. from 4.6m. tonnes in 1975 to around 6m. tonnes, and, although the fourth quarter was disappointing with shipments falling behind the high levels achieved in the two preceding quarters, order books are now strong and deliveries in the first few months of 1977 are expected to be high.

Last year the U.S. producers put up the price of the metal in June and again in August to its present price of 48 U.S. cents per pound but in the case of semi-fabricated products difficulty was encountered in implementing the second round of rises. It is now widely expected, however, that against a background of increased production difficulties a further rise will take place in the ingot price before the middle of the year.

The U.K. market and some other European markets have perhaps surprisingly been somewhat stronger in price terms already, as the much improved results returned by Alcan U.K. for 1976 indicate. Alcan's listed metal price has risen over the past year by no less than half from £420 at the beginning of 1975 to £630. The rise, as the producers point out, has merely brought U.K. prices up to the U.S. equivalent after lagging behind because of strict price controls in 1974 and 1975. The increases which still leave the U.K. price behind that prevailing in France and Germany, also reflect the need for adjustments in the light of the substantial fall in value of sterling during the course of 1976, and the continuing high rate of inflation.

The aluminium companies' ability to implement the rises points nevertheless to the generally strong demand for the metal they have been experiencing over recent months. Though some customer industries in the U.K. such as motors and building have made only a partial recovery from the recession, export markets have been buoyant.

The unanswered question as far as the industry worldwide is concerned, is whether the improved market coupled with the tightening of the metal supply will now bring forward the investment required to sustain growth in demand in the 1980s. In the U.S. as in Britain the return to higher shipment levels has had its effect on the balance sheets of Alcoa, Reynolds and Kaiser, all of which are reporting higher earnings on their aluminium activities. This year should see a further improvement in profit. There has also been some slowdown in cost increases, though any price increase this year will be partially offset by the higher costs likely to be incurred as a result of problems in the North West. The impact of new energy and labour contracts has also still to be gauged.

The industry now reckons around 55 cents per 1lb to be the minimum price level needed to justify further investment and although some producers have obtained further capacity through acquisition, notably Kaiser, none of the U.S. majors has any plans for substantial new plant. At the same time the contribution which it was thought the new oil and bauxite rich countries might make towards the metal supply looks at best to have been delayed.

There is a gap therefore which will have to be filled before that date if the rate of growth in aluminium usage is not to settle permanently some way below the historic 7-8 per cent. per annum rate of the post-war years. Ways and means of doing this are now being considered by all the big companies but major decisions may well be delayed until the market has shown its ability to sustain some further upward adjustments in price. The more rapid rundown in world stock piles which now seems likely if present production problems in the U.S. remain unresolved could see this begin to happen from the second half of the year onwards.

Rhys David

Language

CONTINUED FROM PREVIOUS PAGE

starting a transaction by the purchase of a futures contract.

LOT: The minimum contract size in which one may deal. On the LME a lot is often called a warrant or a contract. For copper, lead and zinc the lot size is 25 tons, for tin it is 5 tons and for silver 10,000 troy ounces.

MARGIN CALL: A request for funds by a broker to his client to keep the original deposit intact at, usually, 10 per cent. of the contract's value and covering any potential losses open positions may show against current market values.

MARKET ORDER: An order to buy or sell a futures contract at the first obtainable price or prices on the market for the tonnage involved.

MARKET IF TOUCHED: OR M.I.T. A term usually used by chartists. It means buy or sell at market if a certain level above or below the current price is reached.

MERCHANT: A metal merchant—as distinct from a producer's agent or broker—often acts as a principal, buying metal or concentrates from producers and others and selling the metal on to others. He will often hold metal for his own account waiting for a buyer.

NOMINAL PRICE: An estimate of the price for a futures month or date which is used to designate a closing price when no trading has taken place in that month or date.

OFFER: The price the seller is asking for the commodity he is offering.

OPEN OUTCRY: The method of dealing employed on the LME and other futures markets. The broker says for all to hear, Buy (or sell) X amount for a stated delivery date and a stated price. When another broker responds to take the bid or offer, the deal is fixed and that price becomes the latest traded price for the delivery date for the commodity.

OPEN POSITION: A forward market position which has not been closed out. For some U.S. clearing house exchanges the net open position is an important statistic and published daily.

OPTION: An option gives the holder the right to buy from or sell to the grantor of the option in advance that the price basis will be the closing price of a specific ring or rings on the LME. The buyer will therefore be pricing-in on the close of that ring and will probably hedge his purchase by selling during the closing stages of that ring.

PRICING OUT: Is exactly the opposite of the above where the seller is selling a quantity of metal at the closing price and will, therefore, hedge his sale by buying during the closing stages of the ring.

PRINCIPALS' MARKET: A futures market where the ring dealing members act as principals for the transactions they conclude across the ring and with their clients.

PROMPT DATE: See delivery date.

PUT OPTION: A put option gives the holder of the option the right to sell to the grantor of the option at any time before the expiration date a specified quantity of the commodity at an agreed price. A put option is bought on the expectation of a fall in prices.

REFINERY: As distinct from a smelter which produces crude metal by treating mine feed (concentrate), a refinery produces high purity metal either by electrolytic or fire refining. In copper and lead, refining is always preceded by smelting, but in tin and zinc smelting and refining blend into one process of recovering marketable quality metal from concentrates. Refiners (and smelters) also treat scrap materials.

RING: A trading period of five minutes on the LME; e.g. the first tin ring is from 12:10 to 12:15.

SECONDARY METAL DEALER: A firm which specialises in buying and selling at any time before its expiration date a specified quantity of the commodity at an agreed price (basis or striking price). The cost of buying the option is called the premium.

PHYSICAL: See Actuals.

PRE-MARKET: Trading among brokers before the LME opens for ring-dealing. This can be a very active trading session on the market influenced by the hedging operations of producers and consumers. This is because the previous day's settlement price is still the valid producer price, usually until 11.30 am or mid-day. Consumers, therefore, are matching their sales to customers with price fixing on the producer price and then hedging the out of balance metal position on the LME. See back-pricing.

PRICING IN: Where a merchant agrees to buy a quantity of metal from a consumer both parties will agree scrap metal. The metal purchased and sold is often in alloy form (such as brass) and often in a fabricated form, but is always on risk from fluctuations in the value of the basic metal. Metal recovery is very important throughout the world. Copper scrap, for example, accounts for about 40 per cent. of all copper consumption.

SEMI-FABRICATOR: See Fabricator.

SESSION: There are two sessions on the LME each day. One in the morning and one in the afternoon. Each session comprises two five minute "rings" for each metal and a 15 minute "kerb" period.

SHORT: Starting a transaction by the sale of a futures contract. An open sold position on a futures market.

SPOT MONTH: This term, which does not apply to the LME, means the first deliverable month for which a quotation is available on a futures market. For example, "March is now the spot month on Comex."

SQUEEZE: Pressure on a particular delivery date which makes the price of that date firmer in relation to other dates.

STOCKIST: A stockist is one who holds stocks of semi-fabricated products ready for sale to users. Stockists usually specialise either in steel/stainless steel/aluminium or in copper/brass/high value metals. A stockist function is also fulfilled by, e.g. a builders' merchant who holds large stocks of copper tubing or plumbing fitments.

STOP LOSS ORDER: An order which becomes a market order to buy only if the market advances to a specified level or to sell only if the market declines to a specified level. As soon as this specified level is traded the order is executed for the client at the next obtainable price. There is no guarantee the order will be executed at the price specified. A stop loss order, as its name implies, is instituted to prevent or minimise losses in either a short or long position.

STRIKING PRICE: See Basis price.

SWITCHING: On the LME switching simply refers to exchanging metal in one warehouse for that in another, e.g. Rotterdam for London.

TENDER: Delivery of the physical commodity against a futures contract.

TURNOVER: See Volume.

VALUE: An LME term referring to a price which is traded in a volume sufficient to satisfy the current buyers and sellers at that price i.e. there are neither buyers nor sellers "over" at that price.

VOLUME: The quantity of business or transactions done. Also referred to as turnover.

WARRANT: The document of title to metal stored in an LME registered warehouse. The warrant is a bearer instrument and states brand of metal, weight, number of pieces etc. A term also the same way as "lot."

Source: Wolf's Guide

International involvement

On this and the next page, our foreign correspondents look at the attitudes to, and involvement in the London Metal Exchange of some of the countries, both producers and consumers, which use it as a base for trading

JAPAN

JAPANESE non-ferrous metal industrialists and traders sometimes view the LME with a combination of envy and criticism, especially in regard to copper trading. But on the whole they expect to make more use of its facilities in future. Of course, proposals have been advanced for the establishment of a Tokyo metal exchange and introduction of a producers' price system. but a plan to set up a Tokyo warehouse of the LME seems to be under more serious consideration.

A few Japanese firms operate on the LME through joint ventures with ring members, but their operations are officially limited to hedging under foreign exchange restrictions enforced by the Japanese Government, which currently bans copper exports and imposes duties on copper imports.

Mr. Akira Fujisaki, president of the Japan Mining Association, said recently that, in his personal opinion, producer and consumer nations should consider adopting a producers' price system for the world copper market to stop wide price fluctuations on the LME.

Both producer and consumer countries have been suffering seriously from erratic fluctuations of world copper prices, Mr. Fujisaki said. Moreover, he continued, development of new copper mines is not feasible at the present copper price level. so a serious copper shortage could emerge by 1985.

Discussions

If the current discussions at the UN Conference on Trade and Development (UNCTAD) on ways to stabilise the copper market bog down, it will be worthwhile for producer and consumer countries to get together to consider introducing a producers' price system, he said, adding that this, however, presupposes that producer countries are willing to and capable of curtailing their copper output.

Mr. Shimpei Omoto, president of Mitsui Metal Mining and Smelting, said at the London Metal Forum last October that there are many copper producing countries that "cannot freely use the metal market because of their restrictive laws and regulations concerning foreign exchange, and export and import trade.

"If the wide fluctuation in metal prices formed at the Metal Exchange should last long, the producers may question whether it is reasonable to leave pricing of their product to the Metal Exchange where any direct participation by producers is inhibited," he said.

Mr. Omoto also proposed the creation of non-ferrous metal stockpiles by both consumer and producer countries and the adoption by the International Monetary Fund of these metals to back its special drawing rights.

Earlier last year, Mr. Yoshihiro Inai, president of Mitsubishi Metal Industries, suggested the establishment of a metal exchange in Tokyo, in order that Japan and other countries in the Far East may have more say in the forming of world copper prices. He also said that the LME should be placed on a U.S. dollar basis, instead of sterling, to reduce the effects of sterling fluctuations on copper prices.

But since such a plan would need large funds and take a great deal of time to materialise, Mr. Fujisaki added that the creation of a Tokyo warehouse of the LME might be a more practical solution.

The Japan Brass Makers Association said it is pushing ahead with a plan to seek the setting up of the Tokyo warehouse of the LME for the stabilisation of copper prices in Japan. The Association's raw materials committee has reached the conclusion that an LME warehouse in Tokyo would benefit both copper producers and users in Japan, and is now trying to bring the Japan Cable and Wire Manufacturers Association, another group of users, round to this view.

The Association said relaxation of foreign exchange and foreign trade controls by the Japanese Government would be needed if the plan was to succeed.

Warehouse

Japanese companies concerned should be allowed to have enough foreign exchange to be free to import and export copper for an LME warehouse in Tokyo to function effectively.

If the Cable and Wire Manufacturers' Association agrees to the Brass Makers' Association's plan, the latter will seek the support of the Japan Mining Association before presenting the scheme to the Japanese Government for approval.

Three years ago the Japan Wrought Copper Council sounded out the International Wrought Copper Council on the possibility of setting up a Tokyo warehouse. At the time, ring members of the LME indicated they would have no objection to such a measure.

Japan consumes 800,000 tons of copper annually and imports 500,000 tons of copper-ore and concentrates (in terms of metal) and more than 200,000 tons of electrolytic copper, the remainder being covered by domestic ore. Exports of electrolytic copper from Japan have been banned since 1974.

To reduce growing copper stocks here following the ban on electrolytic copper exports, Japanese copper smelters negotiated for cutbacks in the shipments of copper ore and concentrates from producing countries to Japan—with only partial success—in 1975 and 1976.

Japanese smelters say the ban on copper exports did not attain its objective of stabilising world copper prices, which fell steeply in 1974. They also complain that other advanced industrial countries were freely selling their copper on the LME, while Japan stopped its exports.

In these circumstances, the smelters say they would like to see the export ban lifted whenever such a measure is considered feasible by the Japanese Government.

Saburo Matsukawa

SOUTH AMERICA

THROUGHOUT MUCH of last month the letters LME were printed in bold type on the front pages of newspapers of La Paz as the price of tin touched record heights. The same has happened in the past in Chile and Peru when there have been violent fluctuations in the prices of other metals, notably copper.

The importance of the mining industry in all three countries ensures that what happens on the Ring in London is always of vital importance to the economy and often to the politics of the three Andean countries.

Though the three are not as dependent on their metals as Guyana and Jamaica are on bauxite, Bolivia relies for 10 per cent. of its gross national product on the mining sector, Chile 8 per cent. and Peru 6 per cent. Together the three countries' exports account for about two-thirds of the total mining exports of Latin America which are valued at about $3½bn. a year.

Mining is a big provider of jobs (60,000 or 3.9 per cent. of the work force in Bolivia, 90,000 or 3.5 in Chile and 70,000 or 1.6 in Peru) but it is as a provider of foreign exchange that metals and ores are the most vital to all the countries. Bolivia and Chile depend for about 80 per cent. of their foreign income on the products of the mining sector and in the case of Peru it is about 50 per cent.

Marginal

It is no exaggeration to say that the prices of metals fixed in London—though they often refer to marginal amounts of metal not covered by long-term agreements between supplier and purchaser—are the principal thermometer measuring the economic health of the three countries referred to.

In view of the sharp fluctuations that take place in LME prices it is hardly surprising that all three governments have very mixed feelings about the world institution which reflects in the sharpest way their dependence on the vagaries of international demand.

In the first instance it is in the interest of the Chileans, Bolivians and Peruvians to get the best deal they can out of the LME. This is reflected, for instance, in the large office in Bush House, Aldwych, maintained by the Chile Copper Corporation.

It will be reinforced in the next few weeks when a big new Peruvian trade centre is inaugurated here including premises for Mineroperu, the State mines organisation.

The staffs of the three embassies usually contain experts on mining matters. Various Bolivian ambassadors in London have semselves been mining experts including most recently General Juan Lechin, who has been general manager of COMIBOL, the State mining enterprise before being named to his post in Britain.

But at the same time as all three countries try to get maximum advantage from the LME by attempting to time their marketing initiatives with the sentiment of the market as reflected in the LME, they are all keen to achieve some sort of independence from the LME's iron laws.

Example

A notable example of this was the decision by Chile, Peru, Zaire and Zambia to create the Intergovernmental Council of Copper Exporting Countries (CIPEC) to defend producer interests.

Despite the fact that the four countries account for about 30 per cent. of world copper output and two-thirds of world copper exports, CIPEC has not been successful in fixing and maintaining a producers' price since the metal which would be [illegible] the world price.

Bolivia, with its particular interest in tin, of which it is the world's second largest producer, has preferred to try to influence prices through the International Tin Council, the oldest and so far the most successful body of consumers and producers who have tried to iron out what they consider excessive fluctuations in world prices for the metal.

For the moment Bolivia is happy with the refusal of some consumers to increase the [illegible] price of tin fixed by the International Tin Council, [illegible] refused to ratify its continued [illegible] in the Council. There are, however, a few months to go before that refusal means the effective withdrawal of Bolivia from the Council and during that time a new compromise may well be worked out.

But Bolivia's best chance of exercising a major influence on the market may in the end lie not in any boycott of the ITC but rather in its own plans to smelt its tin and other ores locally and thus reduce its dependence on overseas smelters.

By producing its own tin it might be able to assume closer control over international dealings in the metal though it will be difficult for it to rival the power over the tin market that the U.S. exercised through its stockpile of more than 200,000 tons.

Hugh O'Shaughnessy

AUSTRALIA

AUSTRALIANS tend to be only lukewarm about the LME. Although they are a nation of gamblers, LME speculative facilities are generally not available to them. With an economy that leans heavily on exporting minerals, they are often frustrated by LME prices—but no more so than their customers. And there is an ambivalence in Australia's part in the ongoing "North-South dialogue" that aspires to produce an alternative to the free market that the LME exemplifies.

But the consensus is that while this market is imperfect, it is the best there is. For the LME market sets the price, sometimes indirectly, for nearly all Australian non-ferrous metal transactions. As a Western Mining Corporation spokesman put it: "As a long-established institution with a history of practical commercial dealing, its survival is a commentary on its usefulness to most of the industry most of the time."

While this is the industry view there is a slightly different bias from Government, or perhaps more correctly from the Government bureaucracy. Although Australia has made it clear it will not be a party to unilateral pricing, it has had observers in Geneva for the proposals being worked out between CIPEC and UNCTAD. Australia is an associated member of CIPEC and has aligned with UNCTAD in most of its International Bauxite Association initiatives. And of course the Australian Government has a floor price under wool, traditionally the country's main product until the 1960s mining boom.

As mining men point out, bureaucrats rather like the idea of a market they feel they can control. The fundamental difference between metals and wool is Australia's relative shares in the world market for wool compared with its leverage on LME metals, a situation compounded particularly by the high scrap components in copper and lead that removed a high proportion of the total from the conventional market-places.

The LME's relatively more unstable prices are seen from Australia to be the result of three main factors. First, most metals are traded directly between producer and consumer, making this a residual market drawing supplies from controlled as well as free economies and meeting only the marginal requirements of consumers. Secondly, it is affected unduly by market sentiment, particularly its propensity for moving in counterpoint against the trend of sterling. Finally, and most of all, it is considered vulnerable to highly-geared speculators who have no long-term interest in the commodities they trade. Although inherently gamblers themselves, mining men speak disparagingly of chartists, speculators and currency hedgers, and regard them as a danger to their industry.

"The Australian public would like to speculate on the LME," says Mr. Rudolph Busch, a manager for commodity futures brokers Robert Howes, "but they are stopped by Reserve Bank stipulations that permit only genuine hedging. So only Australian producers and people who physically buy the metals are able to make use of LME facilities."

Australia has a unique place in the North-South debate that is focusing on UNCTAD. Geographically part of the southern bloc it has taken its place without debate as a member of the northern or developed nations' team, rather than with its fellow raw materials producers among the less developed countries.

Initiatives

UNCTAD initiatives for trying to iron out the bumps and troughs that concern and sometimes ruin Australian miners are rejected as pie-in-the-sky, as commendable as the aspirations may be. The LME reflects this volatility, and although attacking the LME for the volatility is rather like blaming the thermometer for the temperature, some producers maintain it aggravates unsettled prices.

There are no indications to suggest, one of Australia's major producers says, that cyclical patterns of metal demand generally and for zinc in particular, are likely to become more stable. Fixed investment expenditure, the ultimate source of more than two-thirds of zinc demand, is expected to face a particularly uncertain time, setting a real problem for Australia, which ranks third after Canada and Peru in terms of exportable surpluses.

"Under such conditions of demand fluctuations the presence of an LME pricing system could lead to instability compounding instability. Investment decisions, bearing in mind the substantially higher capital required to establish new mines and smelters, could be further inhibited." The outcome, this producer warns, could be substitution and withering demand.

MIM Holdings, the company that runs Australia's main copper producer at Mount Isa, stated its attitude to the LME last year before the prices justification tribunal—a guarded affirmative.

MIM's chairman Sir James Foots rates the LME "the best indicator we have on price. It is the basis for our copper sales in Australia and for our copper and lead sales overseas." He sums up the industry view when he adds: "It is alleged that there are some shortcomings to the LME and this is illustrated by the referral by CIPEC nations of the matter of copper pricing to UNCTAD. But in general terms the average of the LME price over the long term, volatile though it may be, is that price necessary to maintain supplies to the market."

Donald Lipscombe

LONDON METAL EXCHANGE XV

UNITED STATES

. LONDON Metal Exchange
ı most U.S. buyers of metals'
point is an enigma. Its con-
ıeration of terminology—
angos, backwardations, arbi-
. spot, prompt—and the
y of activity and discussion
surrounds it leaves the
age U.S. buyer pondering
t it is about.

ıyers here have known that
LME often plays a role in
.encing the price they may
for copper, lead, zinc or tin.
how the LME works, and
they can use it in their own
:hasing operations, remains
ınd their thinking.

ıere are many reasons why
buyers stay at a distance
ı the LME. Most noticeably,
have had a history of pur-
ing their metals directly
ı producers. Copper, lead,
and silver were generally
ıdant in the U.S. during its
strial development, and the
ght of hedging against
tages, political policies and
e increases was just not
.e. The producers could
.ys supply them with metal
a regular basis—a steady,
ıble, abundant source.

:condly, Americans by their
nature are not a bartering
ɔle. They are the type of
sumers who walk into any
ness establishment pay the
e as listed. They are not
ıstomed to dickering for a
e—consequently the concept
n exchange with its bid and
activity is foreign to them.

wareness

ven to-day with the greater
reness of exchanges in the
the majority of metals
ɜrs do not participate in
ı. What may compound
r reluctance even more is
recent creation of the com-
ity futures trading commis-
, designed to monitor the
ity of exchanges, which in-
tly implies that all may not
roper in such operations.

ıe small percentage of
ls buyers who do know and
he London Metal Exchange,
urse, do not view it in this
ıer, and it appears that
est is developing in the
lon Metal Exchange as a
et medium in the U.S.

ıch of this interest by U.S.
rs has developed in the past
years because of inflation
recession in the economy
because they want a new
of solving some of these
lems. Consequently, there
been more than normal interest in the LME and how it may be used by U.S. manufacturing firms.

Accompanying this increasing curiosity is a more active publicity campaign among trading houses to inform the American business community about hedging on the LME. These campaigns, spearheaded largely by Rudolf Wolff and Co., have helped to untangle the LME in many an American executive's mind. It has, if nothing else, pointed out that there is another way to buy copper, lead or zinc.

This generally is the attitude of the U.S. towards the LME if one uses U.S. metal consumers as a whole as a basis, but among those who are more finely tuned to the LME, the arguments against using it are the usual ones that have existed throughout its 100 year history.

More precisely, the U.S. metal producers have ardently opposed the pressures to base their pricing on the free flow of the Exchange. These arguments centre mainly among the producers of copper, lead and zinc. The U.S. does not produce any sizeable amounts of tin and silver traded on the Comex so that these metals have never entered into the arguments about the merits of pricing and trading on the LME.

The U.S. producer opinion basically is that prices quoted on the LME are subject to sharp and sudden day-to-day fluctuations and to the extreme swings that take place over a long period. This, they contend, is hardly a basis for orderly development of metal resources and consumption.

Among the more extreme producer viewpoints is the attitude that price fluctuations on the LME are largely brought about by speculation rather than by industrial economic cycles. On the other side there are producers and consumers of LME metals who admit that the exchange does serve to provide them with a hedging mechanism which lends stability to their operations while also serving as a deterrent to possible arbitrary treatment from their suppliers or interruptions in supply.

Given the change in the political scene, especially in copper where over 50 per cent. of the world's copper production is under Government control, U.S. producers and suppliers are beginning to re-evaluate their thinking on the role the LME may play in the market place. However, it would be misleading to assume that this American attitude is changing rapidly. For the most part, American metals executives remain suspicious of the LME.

Further supporting their reluctance to become involved in the U.S. anti-trust laws which forbid producing companies buying and selling their metals on the Exchange in fear that they could fix prices. This Government attitude was recently displayed in the zinc investigation last summer. The U.S. Justice Department is currently conducting a study of the European zinc producers to find out if their support of the zinc price on the LME in 1976 was actually a manipulation of prices. Although it seems awkward for the U.S. Government to be putting its nose into the European zinc industry, it can take action in the form of duties and tariffs on zinc coming into the U.S. from these producers.

This Government stance only serves to further the arguments that the U.S. buyer of metals best not become involved with the LME.

But curiosity still remains and is growing in the minds of American metals buyers as to possibilities that do exist for them in using the London Metal Exchange. Perhaps the next 100 years of its existence will show more U.S. involvement in what has already become a very important market medium in the international metals world.

Pat Walker
Editor, American Metal Market

SCANDINAVIA

THE NORDIC countries are the largest producers of non-ferrous metals in Western Europe but in world market terms their output is relatively marginal. Most trading within the area is, therefore, closely linked to the pricing of the LME. This is particularly true in the case of copper, where the Nordic countries are net importers, less so in the case of zinc, of which Finland and Norway together produce some 170,000 tonnes, well above the combined Nordic consumption.

In addition to using the LME as a price setter, producers and consumers alike take advantage of its other facilities, in particular the hedging instrument, although the extent to which this is used varies considerably from one company to another. In general the Swedes operate more on the LME than do the Finns.

The main criticism voiced within the area at present centres on the use of sterling for all LME quotations. This creates a double problem for dealers, who have to cope with the sharp fluctuations in the pound as well as metal price changes. Some Nordic dealers moot the idea that the LME should switch to dollar quotations.

Both producers and consumers, while recognising that the LME has decreased the plunge in metal prices during the recession, express a yearning for a system yielding more stable prices. A Finn, for instance, remarked that the LME did not have the full support of the copper producers, because the rapid fluctuation in prices hampered the development of a firm copper market and made the metal more vulnerable to substitutes.

Method

This critic was interested in the practice rapidly gaining acceptance under which a customer buying forward for six months undertakes to pay the interest charges on the financing involved. The method was being used by some British manufacturers and American copper producers were trying to apply it. It should result in a slow price escalation for the producer in the long run, the Finn thought, and represented a small improvement over current LME practice.

Swedish producers, whose high costs are not covered by the current LME copper prices, would like to have a producer price for the metal but Sweden has made it clear at UNCTAD conferences that it does not believe in CIPEC efforts to control copper prices. The Swedes accept the need for free trade in metals and see no better alternative than the LME to the stock financing that would be required by a price control system.

Opinion is divided in the Nordic countries about the extension of LME warehousing facilities. The consumers and semi-fabricate manufacturers would be interested in having a warehouse within Scandinavia. As long as copper demand in the Nordic countries exceeds domestic production, however, the Nordic producers would regard LME warehousing in the area as placing a competitor on their doorstep.

Production and consumption figures for the Nordic countries can be confusing, particularly for copper, where official statistics do not always distinguish between refined metals and semis. Denmark, for instance,

CONTINUED ON NEXT PAGE

W. GERMANY

WEST GERMANY, as the world's third-largest buyer of raw materials with a bill close to DM10bn. last year, would find life difficult if the London Metal Exchange did not exist.

In practical terms, prices for three of the four base metals traded on the Exchange—copper, tin and lead—are taken as the direct basis of transactions, after adjustment for currency fluctuations. The LME zinc price is hardly less important, although the German producer price for the metal can, as at present, diverge quite widely from the London level.

While the LME is thus an inseparable part of the West German metals business day-to-day, it coincides with the country's prevailing economic philosophy of leaving such matters as pricing goods to the free play of market forces wherever possible. It is a striking fact of life that no significant political grouping in the country advocates any fundamental change in this economic order. The "social market economy," as West Germany call it, has proved itself by making the country rich, keeping it relatively well insulated from world recession, and offering it every chance of continued prosperity. Why tamper with something that, for West Germans, has worked so well up to now?

Such is also the basis of the West German approach to the current problems of the international economy, and in no sphere has this been more clearly seen than in the debate over the Third World's plans for the strict regulation of trade in key raw materials. At the Nairobi meeting of the United Nations Conference on Trade and Development (UNCTAD IV) last year, Bonn came close to diplomatic isolation because of its refusal to contemplate such grand designs as the UNCTAD Secretariat's integrated commodity fund or its call for a "global solution" to the poorest countries' debt burden.

In part, West Germany's attitude was—and still is—the understandable hesitation of the rich man who fears that the outcome of other people's generously conceived plans would be to soak him. Much more important is the belief that regulation of trade would both tie up huge sums that could be better used, and would sooner or later cause distortions of prices and production worse than those it set out to cure. Further, West German officials point out that so far as this country's trade pattern is concerned, the main beneficiaries of artificially fixed raw materials prices would not be the poorer Third World nations but the industrialised countries which are also major minerals exporters, such as Canada, the U.S., Australia, South Africa, Sweden and the Soviet Union.

Misgivings

In spite of these misgivings, the Bonn Government may find itself obliged for the sake of European Community politics to go along with at least a minimal compromise when the North-South Conference in Paris finally gets down to serious discussion of the commodities question. Little has been achieved so far by a joint Franco-German committee set up last summer to work out the basis of a joint EEC approach, however.

If it were left to the West German private sector to offer solutions, the advice to copper producers in particular, would doubtless be to make better use of the LME on their own account. The view of a number of senior figures in the metals industry is that although copper producers, to take the most important example, would still find it hard to deal with long-term problems of surplus production, judicious use of the hedging mechanism offered by London could do a good deal to smooth excessively wild fluctuations.

In West German eyes, the LME offers a truly free market whose workings do not favour either buyers of metals or their producers. Not only is the market free: it is also international. LME prices are used for all West German companies' major supply agreements, including the increasingly important deals for the supply of zinc, lead and copper from Eastern Europe, as well as for all domestic prices structures by fabricators (with the partial exception of the German producers' price for zinc).

Estimates

Although exact figures, or even reliable estimates, are impossible to come by, it seems probable that West German industry is the largest single consumer of physical metals transactions through the LME in Europe. The Exchange itself has acknowledged this extremely large element in its business with the location of four of its warehouses at European ports convenient to the West German market—Rotterdam, Bremen, Hamburg and Antwerp.

German connections with the LME are nearly as old as the Exchange itself. Metallgesellschaft, the largest West German company in the base metals industry, can trace its dealings back to the end of the past century, when its predecessor, Henry R. Merton, was one of the early users of the Exchange. The group is now, through its London subsidiary Metallgesellschaft Ltd., a ring member of the LME—the first and so far only member with West German capital primarily behind it, in which the Japanese company Nissho-Iwai has a 10 per cent. interest.

Metallgesellschaft's direct membership of the LME was regarded as something of a test of the City's willingness to admit foreign participants into institutions as close to its heart as the metals market when it was introduced in 1971. As the company sees it now, this direct participation is an indispensable part of its self-protection as a fabricator able to hedge, in addition to direct involvement in the mechanism which sets the price of its raw materials.

So far the example has not been followed by either of the other two giants of the West German metals sector, Preussag in the lead and zinc markets and Degussa in the precious metals sector, although both companies are of course among the major customers of LME brokers.

Looking further ahead, West German companies would probably be in the front ranks of those who are seeking to expand the role of the LME into new fields as well as strengthening it in its present ones. In this connection, the establishment of a futures contract in aluminium would be welcomed, if the technical problems of agreeing on standard forms of specification and metal content could be settled. West Germans tend to be more dubious, however, about the prospects of introducing contracts for any of the so called minor metals, in which volumes are felt to be too low.

Adrian Dicks

The main advantage of the LME to the metal fabricator, as W. R. Millership of BICC explains below, is its hedging facility, which enables the fabricator to avoid being exposed to extreme market conditions.

A fabricator's view

FOR COPPER fabricators throughout Europe and Japan, the London Metal Exchange provides the vital "hedging" facilities needed as protection against fluctuations in prices and supplies.

Over many years an increasing number of fabricators of non-ferrous metals throughout Europe and Japan have come to appreciate the benefits which the London Metal Exchange can offer them.

Most important of these benefits is the hedging facility. The LME also offers the facility of providing physical metal whenever it is required. The normal practice existing between consumers and producers, for the greater volume of their non-ferrous requirements, is to establish annual contracts, usually made in October for the succeeding year.

International producers set up annual contracts which means that the consumers enter into commitments for a firm tonnage to be delivered at regular monthly intervals throughout the year, and with this tonnage, the consumer is required to comply with certain pricing constraints, giving a maximum tonnage in one day, in one week and in one month.

Consumers

The consumers go to a great deal of trouble to establish their tonnages and in many cases have have an extremely sophisticated market research mechanism which will enable them to identify the expectation of volume for the year in question. Even with the most expert forecasting systems, it is quite impossible to guarantee that the rate of sales will match the physical commitments which have been entered into. As a result, the fabricator finds himself with the need to have a market through which he can safely hedge his positions, and thus give the very necessary protection which is required.

Many fabricators have their selling force in the field, operating from the commencement of operations throughout any day, and obviously their sole objective is to sell the metals which are produced, be they in building materials, or requirements for the car industry, the cable industry, or any other associated operation.

This means that in one day a fabricator can be faced with a position where his sales greatly exceed the pricing capabilities which he has, through his supply contracts, and there is a real need to be assured that he is not exposed in any way, though he may be in imbalance.

This would mean that it would be necessary to engage in purchase hedging on the LME. By the same token, it is not inconceivable that the fabricator can find himself with a situation whereby sales do not in any way measure up to the commitments which he has entered into with the producers, thus creating a need for hedging operations in order to give adequate protection to his book.

It should be made clear that in conducting these hedging operations, the fabricator is not indulging in any speculation, but is only seeking to cover his positions, so he is not in any way exposed to extreme market movements.

What is not generally appreciated is, that the producer contracts can quite frequently put a fabricator into a position whereby he is forced to price fix under the terms of his contracts, even though he does not have sales to cover these commitments.

Hedging, therefore, is vitally important to fabricators throughout Europe and Japan, and it is this facility which the London Metal Exchange provides.

Another advantage is that the London Metal Exchange has 42 warehouses operating throughout five countries. From these warehouses, fabricators can call up supplies in the event of the pipeline from their producer friends being disturbed. It is surprising to note how often a supply line can be disturbed.

I cannot recall any year in the last decade when there has not been some sort of *force majeure* declaration by one or other of the primary producers largely because of natural disasters, mining strikes, long shoremen's strikes, seamen's strikes, dockers' strikes and acts of war.

There are endless difficulties created by seamen and dockers strikes, which interfere with the smooth flow of copper from the producer to the customer.

It is at these times that the fabricator can complement his stocks by calling upon the materials from the LME warehouses.

It should not be forgotten that the LME has shown its ability to carry stocks of the magnitude that it has, not only providing the facility of copper financing, but warehousing, insurance on the metal to this extent, representing as it does, something of the order of £500m.

At the moment there is a call for stabilisation of the price of copper from various parts of the world, and the fabricator requires stability as much as anyone else in the copper industry. The price of copper has held up remarkably well, and it says much for the financial stability of the LME that it can cope with copper in these quantities and hold it for as long as may be required.

It seems that some members of the industry ignore this fact, and appear to regard the Metal Exchange as having a bottomless pocket. One hears much talk in UNCTAD circles about buffer stocks, but how many people really appreciate that the LME can cope with enormous physical stocks, and has never come under pressure or constraint of any kind, giving as it does, a very considerable service to both producer and fabricator alike.

Influence

The growing influence and acceptance by the world at large of the LME is clearly illustrated by the growing acceptance of the London Metal Exchange by Eastern European countries.

There is evidence of this in the decision by Poland, which is becoming a large international producer of copper, to enter into supply contracts based on the London Metal Exchange prices, while Russia, which is also becoming another large supplier of copper, uses the LME price as its basis. Yugoslavia, and the new Middle Eastern producer, Sar Cheshmeh Iran, will also be electing to have the LME price as the basis for its production.

Other countries using LME prices include Australia, Spain, South Africa and Bougainville, and there is an increasing interest by overseas metals operations in membership of the London Metal Exchange, either as a subscriber or through a company which offers ring dealing membership.

It is a matter of constant concern to the LME to extend the warehousing facilities. The Warehouse Committee is at the moment, considering applications from Italy and Sweden, and talks have been held with Poland and France, with a view to establishing warehouse facilities in those countries.

In this respect, the fabricators appreciate the high standards which are called for by the London Metal Exchange. Great attention is paid to the location itself, and to security arrangements. Weighing equipment must be of the highest standards, and also there is a requirement to know the amount of capital which the warehousing company is able to put forward.

In the past, there has been some idle talk about whether the metal is actually physically available in warehouses. This is scrutinised scrupulously, and at all times, when stocks are declared, the metal is available in the forms indicated.

The fabricators main concern about the LME is that it is inclined to be over-sensitive in making its daily prices, but there is little doubt that producers and consumers alike are agreed that the LME's price making function is a fair way of determining a world price.

It does ensure that copper is marketed by producers without unfair competition, and equally important, ensures that the Fabricators receive their copper at a fair price.

More and more fabricators would like to see producers becoming more active in the market. They could assist in containing the volatility of the market, thus encouraging more consumption of copper over a long term.

Fabricators are aware that it is impossible to prevent speculation and are of the opinion that no matter what difficulties prevail, or what operation may be introduced, there will always be an element of speculation in a free market. The importance of the LME is that it is a free market, which does not have any constraint, in terms of daily price movement, and the buyers and sellers can enter into the market at any time. It produces a price every day which is the result of the instructions it receives from all parts of the world, reflecting the supply/demand conditions of the future.

What the fabricators do not want to see is Government interference no matter how well meaning the efforts of Unctad are, and nobody doubts the intentions expressed by this body. But it is going to be impossible for so many countries to reach a unanimous agreement, when so many of the countries concerned in Unctad simply have no interest whatsoever in copper.

Fabricators believe strongly that there should not be Government interference in such matters, and that the affairs of a "free" market should be allowed to operate.

Apart from the inadequacy of warehousing, one of the other factors which fabricators feel the LME may have been a little lethargic over, is the change towards a copper cathode market. With the increasing changes in technology and the movement towards continuous cast, bringing as it does a change from wirebar to cathode, there will be a need for this change to come about. Many consumers feel that this should already have been done.

Knowledge

During its 100 years of operation, the existence of a vast reservoir of knowledge has been accumulated by the market, and tremendous expertise in warehousing, financing, shipping, markets, the production and consumption of copper in areas of the world outside America, currency, and the movement of copper across the world, has been built up. It is this vast experience which has taught the LME to cope with all kinds of circumstances. The LME has built up a considerable maturity and in the last 100 years has, at all times, modified its operations in the light of changing world conditions, and has met all consumers needs.

One of the vehicles which is trying to bring about some much needed improvement in stabilising the price of copper is the International Study Group, set up on the initiative of the producers, and which is very much welcomed and applauded by the consumers. But they also realise that this extremely complex subject is something which will not see results achieved overnight. However, the progress made in the three meetings which have so far taken place since June of last year, has been significant. There is complete agreement with the producers and consumers on all points.

So the indications are that the LME should continue to be the basis on which the daily prices are established. This, in itself, clearly illustrates the importance of the LME.

SCANDINAVIA

CONTINUED FROM PREVIOUS PAGE

could show practically no copper consumption, because Nordiska Kabel Og Traad, the main consumer, has its wire rods produced by Elektrokoppar, the ASEA subsidiary in Helsingborg, Sweden.

Boliden meets roughly half Sweden's consumption of refined copper. In 1975 production was roughly 57,000 tonnes against a domestic consumption of 94,000 tonnes. Imports are around the 65,000-tonne level. Boliden imports about one-third of its requirements of copper concentrate at prices based on the LME quotations. When refined metal stocks are high, it will sell on the LME, but like most Nordic metal producers it is reluctant to indicate the extent of its dealings with LME.

Granges Metallverken, the main Swedish producer of copper and brass semi-fabricates with total deliveries in 1975 (including aluminium products) of 112m. tonnes makes extensive use of the LME hedging facilities and also used the exchange for physical deliveries to its works close to LME warehouses.

Outokumpu, the Finnish manufacturer, produced 60,000 tonnes of anode and 38,000 tonnes of cathode copper last year, while the output of semi-products from its Pori works rose to over 36,000 tonnes. It has very little direct involvement with the LME although it follows LME quotations. It hedges from time to time but indirectly through its own trading contacts rather than through the Ring dealers.

Nokia, whose cable division is the largest Finnish copper consumer, takes 15-20,000 tonnes a year. It receives part from the Soviet Union, to which it exports cables, but also buys through the LME. The quantity imported this way varies considerably from 10 to 25 per cent. from year to year.

Zinc production is concentrated in Outokumpu (1975 output 11,000 tonnes) and Det Norske Zinkkompani (60,000 tonnes) in Norway. Outokumpu refines Greenland concentrates and operates tolling arrangements with Canadian and Peruvian partners. It sells no zinc through the LME.

Sweden is a net lead exporter. Boliden produces 40-50,000 tonnes a year but the LME is of little interest in this connection, as any surplus over domestic consumption goes to the company's German smelter. Boliden uses the LME to some extent for silver, as its refining capacity is larger than its domestic supply.

William Dullforce
Nordic Correspondent

Britain in the dock • BY GUY DE JONQUIERES • Brussels, Feb. 15.

Dim outlook for Euro-polls

CREATION of a directly d European Parliament een one of the stated aims e EEC ever since it was ed nearly 20 years ago. It licitly provided for in the y of Rome, which envis the current parliament of nal representatives nomina y their parties merely as gap. When the Govern of the Nine finally got d to drawing up arrange s for the new assembly and dying them in a formal act ear, their achievement was iably hailed as the opening n important, if belated, er in Community develop-

dedicated pro-Europeans, agreement offers hope of ing political momentum in Community at a time when ther institutions are show signs of fatigue. It also ars to enjoy broad grass support: the latest opinion published by the EEC com ion finds that a majority of pean voters favour direct ions, even in countries like ain and Denmark, where ilar enthusiasm for the mon Market as a whole s to be on the wane.

wever, it appears increas doubtful whether the first ct elections can be held in June 1978, the target date ed on by the Nine. To a e extent, the uncertainty s from the British Govern t's continuing failure to any concrete steps towards lementing last year's EEC eement. Because the agree t explicitly states that the elections shall not be held all nine countries are y to participate, Britain the risk of being blamed any delay.

he new Parliament will not charged with anything as ting as forming a Government from its own ranks. Indeed, as now envisaged, it will be given no specific powers beyond the meagre ones invested in the present 198-seat assembly. The most dramatic of these is the power to sack the Commission, though it has never been exercised. The Parliament may also adjust within defined limits about a quarter of the EEC budget or reject the budget altogether, and can summon members of the Commission and the Council of Ministers to answer questions.

The assumption is that the new Parliament will have to draw its initial authority from the grass-roots of the European electorate. Historically, parliaments have often succeeded in creating their own power, and it is to be expected that a chamber of 410 full-time Euro-MPs, each with a direct responsibility to constituents, will agitate more vigorously for a bigger role in running community affairs than the present nominated assembly meeting for only five days or so a month.

Late last year, the Commons Select Committee concluded in its report on direct elections that the implementing legislation would have to receive Royal Assent no later than the end of this month if Britain were to be ready on time. Even though the U.K. seems certain to retain its "first past the post" ballot system for the first set of elections, the committee reckoned that the 15 months would be required to delimit the new Euro-constituencies and make other practical preparations. There clearly is no hope of meeting this deadline now.

There is some sympathy in other European capitals for the British Government. It is recognised that it is unfortunate that the direct elections bill should have to be introduced in a year when the devolution controversy has swamped the parliamentary agenda and sharpened political sensitivities to questions of national sovereignty to a fine edge. That can only complicate the task of steering a path around the objections of a sizeable part of the Labour Party.

The patience of Britain's partners is not unlimited, and further delay can only heighten suspicions about the sincerity of the Government's commitment to the Community. It has already been called into question by the continued British refusal to devalue the green pound used in agricultural transactions; the recent imposition of a special subsidy for pig farmers in violation of the Rome Treaty; and British tactics in the matter of the common fisheries policy. The fact that Britain currently occupies the EEC presidency brings such issues even more sharply into focus.

It is true that most other EEC Governments have so far not introduced direct elections legislation either, and that nowhere has it yet been put to the vote. But in almost every case preparation is considerably further advanced than in Britain, and the practical details of implementation have been subjected to more intensive scrutiny and discussion. Furthermore, Britain is the only country where the fundamental principle of the elections remains seriously in dispute.

Even in France, to which some British officials had looked for an alibi for delays at Westminster, the legislation now seems likely to be approved without too much difficulty once it is introduced. Much of the opposition has been dissipated by the judgment of the constitutional council late last year that direct elections would not violate the French constitution, provided the new Parliament was given no new powers. The Gaullist leader, M. Jaques Chirac, has given his qualified approval to the scheme though a handful of hard-line Gaullists led by M. Michel Debré continue to oppose it, as do the Communists.

The French Government has shrewdly removed another potential stumbling block by opting for a system of proportional representation using national party lists. This has pleased the Socialists, who feared that a constituency system could easily be rigged against them, as well as the Gaullists, who are keen to prevent separatist movements in Brittany and other regions from acquiring wider recognition at the European level.

Though it is envisaged that the electoral system used for the European Parliament should eventually be harmonised throughout the Community, each country is free to choose its own methods for the first set of elections. Five countries—Belgium, Denmark, Italy, Luxembourg, and the Netherlands—already use forms of proportional representation based on party lists and will extend this system to the new Parliament.

The German Government has already published a draft bill, which is being studied by the political groups. Except for three Euro-members from West Berlin who will be nominated, it provides for full proportional representation. The main question is whether party lists should be drawn up on a national basis, as the Government would like, or for the individual Laender.

In Italy, where the Government has also published a bill, political opinion appears to favour regional lists, though for European elections the regional boundaries may be redrawn to ensure a reasonable representation of smaller parties. In the Netherlands, where the Government is expected to publish a Bill soon after next April's national elections, there are also expected to be regional lists, while the Luxembourg Government is due to make its decision known when it publishes its legislation, probably later this month.

In Ireland, the Government has already disclosed the main thrust of its proposals, and it is hoped that they can be approved by Easter. It has chosen to divide the country into four constituencies, with a single transferable vote. It has also proposed that citizens of other EEC countries resident on its soil be permitted to vote for Irish Euro-candidates.

The two Continental countries where legislation for direct elections faces the greatest uncertainty are Denmark and Belgium. The Danish Government originally suggested that the country might be unable to take part in the first elections because of constitutional difficulties. It has since dropped its reservations.

Thorny problem

Belgium is still grappling with the thorny problem of reconciling the conflicting interests of its French and Flemish-speaking populations. The Government has so far held back from making any proposals of its own, leaving the political parties to pick over the question. Mr. Leo Tindemans, the European-minded Prime Minister, would like a single national list, which would give Belgium its maximum weight in the new parliament. But this seems unlikely to win acceptance, and the central issue is whether the country should be divided into two constituencies or three, with Brussels as a separate electoral district.

While the new Euro-MPs will be allowed also to sit in their national parliaments, the sheer physical strain of exercising a dual mandate suggests that most will not. It is widely acknowledged that if their activities are to have any relevance to political problems in the EEC, ways must be found to enable them to retain links with their national parliaments. A variety of possibilities are being studied: in Britain the Select Committee recommended the creation of a "Grand Committee" composed of British Euro-MPs and the two EEC scrutiny committees in the Lords and the Commons.

In parallel with these deliberations, efforts are being made by a number of political parties to equip themselves to fight direct elections. The greatest progress has been made so far by the Christian Democrats: parties from every EEC country except Britain and Denmark banded together last year to form the European People's Party, a trans-national grouping committed to European federalism and presided over by Mr. Tindemans.

The Socialists are working through the Confederation of Socialist Parties of the EEC, established in 1957. They too are working on a joint European platform, though it will probably be rather looser than that which the Christian Democrats aim to produce.

The Liberals established a Federation of Liberal and Democratic Parties last March. This group embraces 13 parties which differ widely in political philosophy. The British Liberals in particular find many of their Continental colleagues, including the Giscardians, rather too conservative.

The members of those new political groupings will have to solve the problem of reconciling differences rooted in geography. It is hardly likely, for instance, that an economic policy appealing to the Ruhr voter will raise much enthusiasm in southern Italy.

It is clear that the future Parliament will be very much a political experiment, but it is one in which a large number of people in the EEC are eager to take part. The decision to prepare direct elections last year was seen very much as a test of the political will of the Nine to continue the development of the Community. The test of that will now be the speed with which the EEC moves to put the decision into effect.

The Directly Elected Assembly
SEATS AND POPULATIONS OF MEMBER COUNTRIES

Country	Seats	Share %	Pop.	Share %	Pop. per member
Belgium	24	5.85	9.8m.	3.77	470,167
Denmark	16	3.90	5.0m.	1.95	315,750
West Germany	81	19.76	62.0m.	23.96	765,938
France	81	19.76	53.8m.	20.77	663,951
Ireland	15	3.66	3.1m.	1.19	205,733
Italy	81	19.76	55.4m.	21.38	683,469
Luxembourg	6	1.46	0.4m.	0.14	59,500
Netherlands	25	6.1	13.5m.	5.19	538,000
U.K.	81	19.76	56.1m.	21.65	692,649
COMMUNITY	410	100	259.1m.	100	631,598

Source: European Commission.

Percentage Swing Towards Direct Elections
TWO OPINION POLLS MADE FOR THE COMMISSION

	September, 1973				November, 1976			
	For	Against	No comment	Total	For	Against	No comment	Total
Luxembourg	67	12	21	100	77	9	14	100
Italy	74	12	24	100	77	8	15	100
Germany	69	12	19	100	76	19	14	100
Netherlands	62	16	22	100	74	11	15	100
Belgium	52	14	34	100	69	9	22	100
France	51	18	31	100	69	13	18	100
Ireland	45	31	24	100	63	14	23	100
U.K.*	33	49	18	100	57	22	21	100
Denmark	36	43	21	100	42	37	21	100
COMMUNITY†	54	23	23	100	69	14	17	100

* 1973—Not including Northern Ireland.
† Weighted average.

Source: European Parliament.

Letters to the Editor

elling ell

n Sir Alexander Glen, rman, British Tourist ority.

Sir,—Much attention has been ted to the large number of rs from overseas pouring Britain to shop. This is t, for what these overseas ors spent in the shops con uted at least £600m. to our nce of payments last year. ny token this is a huge sum, sometimes there is a sug ion that it has been ght about purely because of w pound and that in some s it is less meritorious than e orthodox ways of export-

ur object as a nation is to overseas as much as we can price which provides a fair it. Whether goods are des hed by sea or air or are over the counter in London, ewcastle or Dover, as the case y be, is immaterial. What is fortuitous however, is the d with which this immense enue from over-the-counter ling has been won. It is a ect reflection of the buying lity, the presentation, and the mercial expertise of the dis butive trades in Britain.

Whether they are the very ge, the Marks and Spencers, rrods, or great Oxford Street res, or whether they are the aller shops and boutiques they monstrate the quality of a vice trade which employs r 1.8m. people in Britain, a de in which Britain to-day is world leader.

exander Glen, KBE, DSC.
een's House,
St. James's Street, S.W.1.

Creating wealth

om Mr. A. Russell.

Sir,—The letters from Mr. ic Ambrose and Mr. L. W. ldwin on energy conservation ebruary 11) have one impor t point in common—an appeal unity. Mr. Baldwin wants approach to be on a world de basis: Mr. Ambrose calls immediate European unity d raises what some will see a political issue—the conser tion and recycling of waste oducts.

No doubt Mr. Benn will tell it is not worth while "cost se." But the term is a func n of currency, a yardstick hich shrinks and expands daily, ereas recycled waste is wealth. deed, keep it for a month and terms of money you will find has increased in "value"!

Are there no Members of rliament irrespective of party epared to stand up and call r the establishment of an ency for the immediate collec n and recycling of waste? ch an agency employing "un ployed" would not need to ake a "profit" since it would creating wealth.

istair Russell.
, Ravenscroft Avenue, N.W.11.

Insulation standards

rom The Director, mber Research and evelopment Association

Sir,—I should like to support r. L. W. Baldwin (February 11) his plea for improved insula on standards in dwellings; this a subject which TRADA has een brought to the attention f the appropriate authorities— without success.

The U-value of 0.6 which Mr. aldwin says can be achieved r a small brick house by adding under £200 to the cost is in fact easily attained by standard timber frame wall units without any addition to the cost. The insulation built into the wall units in normal commercial practice results in a U-value of better than 0.5 and ensures all the concomitant energy savings. The weather in this country only occasionally reaches extremes of cold (or heat) and so pay little heed to insulation. It is only comparatively recently that the availability and cost of energy have become major factors and our standards have yet to reflect the change.

Government by ensuring higher insulation standards through building regulations can achieve energy savings. The fact that it would be supported by brick and timber interests indicates that early implementation should be possible.

J. G. Sunley.
Stocking Lane,
Hughenden Valley,
High Wycombe,
Buckinghamshire.

Make people prosperous

From Mr. P. Yerbury.

Sir,—Surely the ultimate absurdity of the progressive marginal taxes payable in the U.K. can be demonstrated as follows:—A married man earning £4,000 per annum pays tax of £1,030.25, while if he earns five times as much, namely £20,000 per annum, he pays £10,686.25 tax, that is, over 10 times as much tax. Is this not penal progression?

What incentive is there for an entrepreneur to risk his capital to offer employment and produce exports when he knows that the Government will take the vast majority of his profits from him in the form of surtax (which anyway totals less than 0.1 per cent. of U.K. exchequer revenue and is therefore insignificant in terms of redistribution of wealth), and to therefore see the best properties in Britain denied to him because they are bought up by wealthy foreigners from tax free areas? The best things available in Britain (and there are many) should be available to those in Britain who earn their way to them, and they should not be denied this opportunity by the whims of a "soak the rich" Chancellor.

Would it not be a more sensible policy to encourage people to be prosperous to increase Britain's wealth? Bonuses could be tax free for example. They even managed this in Russia last year, paying 100 per cent. bonuses tax free to peasants to get the harvests in. Even the most negative, dog-in-the-manger, against-the-grain Socialist dogma has to be axed in hard times.

Paul Yerbury.
P.O. Box 1632,
Hamilton 5, Bermuda.

Composition of the Board

From Mr. P. Brooke

Sir,—By pointing out the exceptional process that Bullock proposes for the appointment of full-time union officials to his "2x and y" boards, Mr. W. Pickering (February 12) only underlines the point that Bullock is in general anxious to exclude them. Surely he doesn't want it to be impossible under any circumstances for full-time officials to sit on the board (in the way in which insane people are excluded from sitting in Parliament)?

As for parity of worker and shareholder appointed directors resulting in deadlock; presumably deadlock would mean inefficient management which would threaten the livelihood of the workforce. If there is parity—but only if there is parity—then the worker-appointed directors will be responsible for good management, and the men to whom they are accountable will not be very satisfied if they don't provide it. Mr. Pickering seems to share the Trotskyite delusion that workers have a vested interest in the collapse of the firms in which they are working. So long as worker directors are not responsible for good management—that is so long as they are in a minority on the board—their function will be to protest against decisions which they feel are not being taken in their interests. That is the perfect formula for perpetuating the very real deadlock in industrial relations that Britain is suffering from at the moment.

Peter Brooke.
Peterhouse, Cambridge.

BR fees—not fines

From Mr. A. Scott.

Sir,—I read Mr. Stern's remarks (February 11) about the Continental system of on-the-spot fines for fare evasion and a minimum of control otherwise.

I wrote to the British Railways Board on this subject and it replied that it was not for want of trying that it does not do it, but because the courts in the U.K. say that they alone can levy fines. BR also tried to get such powers through Parliament, but failed.

I suggest therefore that it collects not fines, but fees. Why should honest responsible passengers have to pay for all that ticket inspection?

Do away with ticket barriers and transfer control on to the trains, as in Switzerland. The fee for finding and collecting excess might be £2 and in first class the full excess collected on the ticket held (no moving out). For no ticket held, the fee would be £5 or £10 in first class. To encourage collection, 15 per cent. of the fees collected could be put towards improving railway pensions.

On certain long-distance trains there might be a booking clerk. He (or she) would sell tickets to last-minute passengers and those wishing to upgrade to first class for an additional fee of 50p over the booking office price. A precedent exists in that second class season ticket holders wishing to travel first must pay excess at the booking office or full fare on the train. In between the clerk would give information and take return seat and sleeper reservations. Indication would be given of the clerk's presence. London Transport would keep its barriers, but charge the fees for surcharging en route.

We must not be uncharitable and station managers would be able to authorise a refund of all but 50p of fees charged in deserving cases.

A. H. Scott.
1C3, Beeches Road,
Chelmsford, Essex.

Civil Service pay

From Mr. T. Layborn.

Sir,—The secretary general Civil Service National Whitley Council, Staff Side (February 7) once again (as is natural) seeks to defend the pay and conditions of the Civil Servants including the advantages enjoyed by the Pensions (Increase) Act 1971 which are enjoyed by no (repeat no) members of private occupational schemes as a built-in right. This being so it is quite impossible for the Government Actuary to assess its value from the comparability angle especially as no actuary, Government or otherwise, can assess accurately the value of such a built-in protection when the quantum of inflation which will take place in this country year by year is an unknown quantity.

The Pay Research Unit no doubt does its best to carry out its task in an unbiased manner but the fact remains its labour force is entirely made up of civil servants without even an independent chairman. It relies upon the Government Actuary and his department for much information, who again are all civil servants and I also believe the comparability is made over too limited a field mainly consisting of the larger and more financially successful companies.

The comparability must not only be fair but must seem fair and when it again gets to work (at the moment its activities are suspended) I submit and hope it will be reconstructed with an independent chairman and its membership should not consist wholly of civil servants but include personnel officers employed in the commercial world. In particular the value of the Pensions (Increase) Act 1971 should receive special attention as should the value of the basic state pension which the privileged civil servant receives in addition to the generous benefits provided under the civil service principal pension scheme with only a maximum abatement of £67.50 per annum against the state £24.50 per week payable to a married couple.

In days gone by it is true that the civil servant was underpaid by comparison with similar jobs in the commercial field and therefore received better non-contributory pension benefits and other advantages. But to-day the civil servant's basic pay alone is equal to that of his commercial counterpart and in the middle bracket of income is superior with less responsibility.

T. A. E. Layborn.
5 Heath Rise,
Kersfield Road,
Putney Hill, S.W.15.

Index-linked pensions

From The Secretary General, Civil Service National Whitley Council Staff Side.

Sir,—I cannot see how Mr. Weetman can assert from my letter published on February 7 that the deduction made from Civil Service pay to take account of index-linking of pensions is inequitable; unless he detects a degree of inequity in the practice of making current civil servants pay most of the cost of the increases paid to their retired colleagues. The adjustment made is the full sum actuarially assessed. How else would any scheme assess a contribution rate that a private individual would have to make taking into account the difference in the benefits between the Civil Service scheme and outside schemes?

I did not attempt to give a full explanation of the way in which the Government Actuary made his assessment. I simply wished to make clear that what he assesses is the difference in value between the Civil Service and the outside schemes after a full deduction has been made for the equivalent benefits.

W. L. Kendall.
19, Rochester Row,
London, S.W.1.

To-day's Events

GENERAL

Joint meeting of Cabinet and Labour Party National Executive considers possibility of closer liaison.

TUC Economic Committee resumes consideration of future pay strategy.

CBI Council meets.

Mr. Edmund Dell, Trade Secretary, addresses Air Transport Section of London Chamber of Commerce on future civil aviation policy, with special reference to negotiations with U.S., 69, Cannon Street, E.C.4, 11.30 a.m.

Sir Robin Gillett, Lord Mayor of London, attends Dyers' Company dinner, Dyers' Hall, E.C.4

PARLIAMENTARY BUSINESS

House of Commons: Scotland and Wales Bill, committee.

House of Lords: Debates on Snowdon working party report on integration of the disabled: and on Court Committee's report on child health services.

Select Committees: Nationalised Industries (sub-committee C.). Subject: Horserace Totalisator Board. Witnesses: Home Office officials and Dr. Shirley Summerskill, MP (4 p.m., Room 8). Expenditure (Education, Arts and Home Office sub-commitee). Subject: Attainments of school-leavers. Witnesses: TUC (4.15 p.m., Room 15). Science and Technology (Japan sub-committee). Witness: Mr. D. S. Davies, general manager, research and development, ICI (10.30 a.m., Room 15).

OFFICIAL STATISTICS

Monthly index of average earnings (December). Basic rates of wages and normal weekly hours (January).

COMPANY RESULTS

Albright and Wilson (full year). Carrington Viyella (full year). United Dominions Trust (half year).

COMPANY MEETINGS

Burton Group, Leeds, 12. Comp-Air, Great Eastern Hotel, E.C., 11.30. Land and House Property, Winchester House, E.C., 10.30. Martin the Newsagent, Connaught Rooms, W.C., 12.

OPERA

English National Opera production of Der Rosenkavalier, Coliseum Theatre, W.C.2, 7 p.m.

BALLET

Royal Ballet dance The Taming of the Shrew, Covent Garden, W.C.2, 7.30 p.m.

COMPANY NEWS + COMMENT

Bath & Portland jumps to £3.25m.

DESPITE THE severe curtailment of the construction industry, second half profits of the Bath and Portland Group expanded from £1.31m. to £2.17m., pushing the total for the year ended October 31, 1976 up to a record £3.25m., compared with £2.09m. for 1974-75.

And although prospects for the current year must be overshadowed by the same conditions the directors foresee the growth in profits continuing.

A divisional analysis of profits before interest—£5.19m. (£3.17m.)—shows that building and civil engineering contributed the largest increase, rising from £1.05m. to £2.53m. Minerals and engineering were both ahead at £0.94m. (£0.5m.) and £0.87m. (£0.61m.) respectively, while the agricultural side showed a downturn from £1.02m. to £0.87m. and the new chemicals interest incurred a loss of £23,000.

There is a tax charge this time of £662,213 and to the net profit there are added, credits of £713,512 (being profit on disposal of leasehold property £641,968—net of tax of £268,000—and surplus on debenture redemption of £71,544), and an adjustment for deferred tax in respect of previous years of £4.12m. (£3.03m.).

Earnings per 25p share are stated at 17.65p against 14.22p. The dividend total is raised from 2.635p to 2.898p net, with a final of 1.648p.

The directors explain that the deferred tax provision at October 31, 1975, has been reviewed in the light of the decision of the Accounting Standards Committee to suspend the operative date of SSAP 11 and that payment of amounts previously provided will not fall due in the foreseeable future.

This review has resulted in a reduction in the deferred tax account of £4.12m. at October 31, 1975, and the comparative figures have been appropriately adjusted. Of the charge for the year £571,493 has been carried to deferred tax account. The previous basis, which has been reviewed, would have given a total charge for the year of £1.66m. against £1.08m. in 1975.

	1975-76 £	1974-75 £
Turnover	66,634,000	54,165,000
Trading profit	6,348,408	4,481,737
Depreciation	1,201,248	1,306,478
Interest	1,893,670	1,085,711
Pre-tax profit	3,253,498	2,089,568
Taxation	662,213	—
Net profit	2,591,285	2,089,568
Profit property disposal	641,968	—
Deb. redemption surplus	71,544	—
Minority loss	—	1,340
Tax written back	4,117,641	3,914,276
Unappropriated	8,902,241	6,946,425

Assets per share at the year end were up from 79.33p to 99.01p.

● **comment**

Bath and Portland Group has emerged from 1976 in a better than expected shape, given the late payment problems it faces on its huge Iranian road project and the cutback in its U.K. civil engineering order book. Pre-tax profits are 55 per cent. ahead on a 23 per cent. growth in turnover. Around half of the £1.2m. improvement in pre-tax profits has come from overseas, with Nigeria, Iraq and Iran all contributing. Overall profits on the civil engineering side have risen by 140 per cent. and the minerals business is up by 89 per cent. The one weak spot was agriculture, where poor demand, for fertilisers principally, led to a 14 per cent. fall in pre-interest profits. A rise in interest charges of £0.85m. reflects the heavy rise in borrowing to cover the late payments on the Iran project. But Bath and Portland Group has transformed its balance-sheet ratios by cutting £4.1m. from its deferred taxation account and transferring it to shareholders' funds. Consequently its debt equity ratio falls from last year's figure of around 100 per cent. to 54 per cent. and the subnormal tax charge means that the dividend cover is nearly doubled. At 3ep the shares yield 11.7 per cent.

INDEX TO COMPANY HIGHLIGHTS

Upsurge at Thermal Syndicate

PRE-TAX PROFITS of Thermal Syndicate reached a record £1,680,000 (including £346,224 surplus on sale of technical knowhow and plant) for the year ending October 31, 1976, against £951,000. Profit after six months was £606,000 compared with £324,000.

Earnings almost doubled to 16.24p per 25p share (8.24p) and a final dividend of 3.5p net (1.513p) makes a total of 6p (2.513p) as forecast at the time of the rejection of the offer by International Combustion (Holdings).

Sir John Paget, chairman, says that the provision of a new research and development block is going ahead to ensure that the company is able to maintain its competitive lead in the high technology fields in which it operates.

	1975-76 £000	1974-75 £000
Turnover	8,904	6,925
Pre-tax profit	1,689	951
Tax	925	517
Net profit	664	428
Dividends	320	134
Retained	344	304

He says that the company is in better shape now than at any time in its history, and that the company is improving its marketing and general commercial skills and manufacturing processes. He adds that it has competitive products and ideas for further improvement and its liquidity position is satisfactory. In spite of the uncertain economic outlook, he says, it is anticipated that the growth of the group will continue during the current year. The order intake shows a rise in export orders.

The company is a manufacturer and fabricator of fused quartz, fused silica and high-temperature refractories.

● **comment**

The 10p rise in Thermal Syndicate's share price over the past two days had more to do with the 140 per cent. dividend increase made possible by International Combustion's unsuccessful bid than with the profit figures. However, a 78 per cent. increase in profits certainly gave the shares support. Although a full fifth of the profits came from the volatile consultancy side, there were doubled profits (£1.3m.) from the main trading divisions, fused quartz and magnesia products. With the costly Brazilian quartz supplies now replaced by apparently stable Angolan as well as U.S. sources, the company is well placed to take advantage of its growing order books. But there must still be doubts whether the company can finance its two year £2.1m. investment programme wholly from retained profits, as it has announced. At 90p the shares yield 10.7 per cent. and the cover is still a comfortable 2.7 despite the big dividend lift.

Statement Page 37

Growth at General Consd.

Pre-tax revenue of General Consolidated Investment Trust rose £135,792 to £990,945 for 1976. The net figure was up from £515,627 to £606,672, after tax of £384,273 against £339,526.

	1976 £	1975 £
Gross revenue	1,155,957	1,045,221
Franked divs. and int.	659,011	569,203
Unfranked	496,942	476,018
Admin. expenses	58,016	54,193
Interest	136,892	135,955
Pre-tax revenue	990,945	855,153
Taxation	384,273	339,526
Net revenue	606,672	515,627
Preference divs	13,650	13,650
Available	593,022	501,977
Ordinary divs.	567,494	447,099
Retained	25,528	58,838

Stated earnings per 25p share improved to 3.24p (2.83p) and a final dividend of 2.1p net (1.8p) lifts the total for the year to 3.1p (2.5p).

At the year end the net asset value per share was 87.8p (80.5p) or 87.5p (80.7p) fully diluted.

Progress for W. Canning

THE UPTURN in profits for the first six months of 1976 was maintained during the second half for electrical and mechanical engineers, W. Canning, resulting in a pre-tax profit of £1,244,000 for the year, against £954,000. Profit after six months was £605,000, compared with £495,300.

Mr. A. R. Houseman, chairman, says that the current year looks more promising for the company's engineering activities, which "had a patchy year" in 1976, and he expects the materials business to continue its increased penetration into export markets.

Unless there is a down-turn in the economic situation, the company expects further growth this year.

The company's major capital expenditure programme will cost in excess of £1.5m. during 1977, financed by a £1m. 10-year loan from Barclays Merchant Bank, and existing overdraft facilities.

Earnings were up by 1.1p to 5.4p per 25p share and a final net dividend of 2.717p (2.43p) makes the total 3.157p, the maximum permitted, against 2.87p.

● **comment**

The 30 per cent. pre-tax profits growth at W. Canning has come from tighter stock control and higher margins in increased overseas markets. At the year-end there was a small cash balance, but during this year cash flow will be hit to the tune of £1m. by increases in the working capital (partly due to the reduction of credit from the chemical suppliers to 30 days) and by the £1.5m. capital expenditure programme. Trading prospects look good with order books on both the plant and materials fronts boosted by new foreign contracts, and a small improvement in the home market which is gaining momentum. In addition, the 49-per-cent.-owned Australian associate has now become a wholly owned subsidiary. At 41p, the share price is supported by the yield of 12.7 per cent., covered 1.7 times.

Statement Page 33

ARCHIMEDES INVESTMENTS

Negotiations are taking place with Arbuthnot Latham Holdings to provide secretarial and investment management services to the Board of Archimedes Investment Trust.

This was disclosed at yesterday's annual meeting of Archimedes Trust. It was also stated that the net asset value of the company's capital shares at January 31, 1977 stood at 66.29p against 47.75p at October 31, 1976.

Sir Kenneth Selby, chairman of Bath and Portland.

DIVIDENDS ANNOUNCED

	Current payment	Date of payment	Corresponding div.	Total for year	Total last year
Aaronson Bros.	1.22	Apr. 2	1.1	1.77	1.6
Alliance & Dublin	4.43	—	3.34	9.27	10‡
Ashmole Inv. ...2nd int.	0.93	April 4	0.92	1.28	1.25
Bath & Portland	1.65	April 1	1.64	2.9	2.84
Cable Trust	3.5	Mar. 30	3.2	5.7	4.6
W. Canning	2.72	—	2.43	3.16	2.87
David Dixon & Son ...int	0.88	—	0.88	—	2.37
Evode	1.34	—	1.27	1.99	1.92
General Consolidated	2.1	Mar. 28	1.6	3.1	2.5
John Haggas	1	April 6	1	—	3.02
Donald Macpherson	1.31	April 6	1.37	2.387	2.15
Meldrum Trust	1.13	April 1	0.98	1.63	1.5
Herbert Morris	7	April 1	4.5	10	6
Romney Trust	1.65	Mar. 28	1.45	2.35	2.15
Simons & Co.	—	—	Nil	3	Nil
O. C. Summers ...int.	Nil	—	1.5	—	3.0
Thermal Syndicate	3.5	—	1.51	6	2.51

Dividends shown pence per share net except where otherwise stated. * Equivalent after allowing for scrip issue. † On capital increased by rights and/or acquisition issues. ‡ Gross total.

J. Haggas expands to £1.49m.

PRE-TAX profit improved by £283,000 to £1,487,000 for worsted spinners John Haggas in the half year ended December 31, 1976. Sales advanced from £7.78m. to £9.51m.

The expansion was achieved in a period of trading that was depressed in the U.K. and buoyant overseas. The directors anticipate that similar conditions will prevail in the second half and, on this assumption, they expect to see a steady growth in profit so that the fulltime figure should exceed £3m.

The interim dividend is held at 1p net per 10p share. Last year payments totalling 3.02p were paid from profit of £2,708,000.

The half year profit was struck after depreciation of £315,000 (£293,000). Tax took £773,000 (£625,000) leaving the net balance at £714,000 (£577,000).

The spinning division made a further substantial increase in profits during the first half. Better margins on export sales, improved quality of raw materials, and higher productivity due to selective investments contributed to this, say the directors.

It was a difficult half-year for the knitting division as virtually all its production is sold in the home market. Cut-throat competition persists, and a general lack of demand has made it very difficult to offset considerably higher costs by price increases.

Sales and profits for the fur fabric division show a small increase, but the outlook is good, and the new factory will commence production at the end of February. Substantial new orders have already been received for this factory, they state.

The current market value of the company's holdings in Government stock is about £7m.

An analysis of profit and sales for the first six months shows, in £000: spinning £1,121 (£743) and £5,255 (£4,467); knitting £182 (£280) and £2,397 (£1,976); fur fabric £184 (£179) and £1,609 (£1,332).

● **comment**

The spinning division at John Haggas continues to make the running with a 51 per cent. advance on last year's profits, while the fur fabric side has now cut out a good section of the market and should do well once the new factory is operational. However, the knitting division is still a problem and profits there have fallen by 35 per cent.; exports have not been easily obtained partly because the quality of material made for the domestic market is generally unsuitable and it would take time to create new styles for overseas. Overall, Haggas has produced a remarkably consistent record in recent years, while other textile companies have been struggling. But the shares are up at the 325p level primarily because of hopes that a way will be found to repay the £7m. worth of gilts (290p per share) to shareholders. The maximum yield is a mere 1.6 per cent.

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Summers £0.42m. deficit

A TURNROUND from a pre-tax profit of £145,000 to a loss of £415,000 is disclosed by civil engineers O. C. Summers (Holdings) for the first half of 1976. In the previous year the figure was £254,110.

In September the directors estimated a first-half trading loss of £190,000, including a non-recurring loss in respect of Envit of £80,000. They hoped for an improvement in the second half.

For the first six months the loss per 25p share was 9.532p (earnings 3.176p). There is no interim dividend compared with 1.5p net last time—dividend total for 1975 was 3p.

Turnover for the six months was £4.11m. (£4.52m.). There is a tax credit of £76,000 (charge £80,000), leaving a loss of £339,000 (£63,000 profit).

The halfway loss includes a trading loss of about £125,000 and a terminal loss on realisation of assets of about £142,000 attributable to Envit the disposal of which has eliminated a drain on resources. No tax credit that may be obtained from trading and terminal losses of Envit has been taken.

The company suffered from a general cutback in Government expenditure during the period but, while the first-half loss will not have been eliminated by the year end, profits have been made for the second half. Early indications of the current year's trading are that this turnround is continuing, say the directors.

The resignations of Mr. D. L. Brown and Mr. C. B. Lakeman, previously tendered, have been accepted and Mr. J. Spindlow and Mr. D. St. C. Morgan have been appointed to the Board.

Downturn at David Dixon

THE DECLINE in taxable profit has continued at woollen cloth and hosiery manufacturers David Dixon and Son Holdings with a fall of £28,000 to £93,000 for the six months to October 2, 1976. This followed on a second half loss in 1975-76 of £39,000 against a profit of £80,000.

The directors state that since September trading conditions have improved significantly and the order books are very healthy. The present indications are that group profit for the year will be well ahead of the year ended March 31, 1976.

First half earnings per 25p share are shown to be lower at 2p (2.64p) and the interim dividend is held at 0.875p net. Last year payments totalled 2.3722p.

After tax for the half year of £48,000 (£63,000) the net balance came out at £45,000 (£58,000). Sales were up £0.42m. at £4.01m.

The company recently sold the Martins factory for £175,000 which shows a substantial profit over book value, say the directors. The hosiery subsidiary A. G. Minard and Sons has been closed down as part of the rationalisation programme and the factory premises are being sold.

Negotiations for the settlement of the debt of £710,025 owed by Bank Bridge are continuing but since the last AGM Bank Bridge has agreed firstly that interest has accrued on the full amount of the debt from August 7, 1975, and continues to accrue, and secondly to waive its right and entitlement to all dividends declared by David Dixon since that date and until the debt is paid or settled.

● **comment**

Competition from imports, and surplus capacity have made for a dismal trading performance by David Dixon in recent years and the six months to last October were no exception. But prospects have rapidly improved since then: orders on the hosiery side are three times the level of last year; the wool cloth side has revived because fashion has partially returned to checks; and exports have increased. The benefit may not come through until the first six months figures of the next financial year, but meanwhile pre-tax profits could approach £200,000 this year for earnings per share of 4.5p. The current share price has run up following the purchase of a 16 per cent. stake by Mr. Malcolm Horsman, one of several stakeholders. At 38p the shares do not look attractive on trading grounds, but net assets per share are about 70p, excluding possible repayment of the Bank Bridge debt and undervaluation by £0.4m. (19.5p per share) or more of the properties. The maximum yield is 10.8 per cent.

ISSUE NEWS

Bamfords £0.72m. 1 for 2 rights

Bamfords, the agricultural machinery group, is proposing a £720,000 rights issue which is likely to pass the control of the company over to Fredk. H. Burgess. The rights issue is on the basis of one-for-two at a price of 30p a share against a market price last night of 32p.

The issue has been underwritten by Burgess, which controls an effective 41 per cent. of the Bamford capital, and because certain members of the Bamford family will not be taking up their rights (they hold 20 per cent. of the equity) Burgess's stake could rise to 47 per cent. or perhaps 61 per cent. depending on the level of acceptances from other shareholders.

Though Bamfords has looked at other methods of raising the £1m. it needed, the company's advisers (Hambros) indicated the difficulties of raising that amount, on top of an equity base in the accounts of just £1m., and the problems of getting it underwritten by anybody else but Burgess.

There already is a trading link between the two companies, for Burgess is one of the largest distributors of agricultural machinery in Europe and it is taking an increasing proportion of Bamfords' output.

As it seems likely that the rights issue will result in Bamford becoming a subsidiary of Burgess, the former has sought assurances regarding the trading relationship, independence of management, dividend policy and the maintenance of its Stock Exchange listing.

The proceeds of the issue will be used towards financing the capital expenditure programme amounting to £1.7m., which comprises of re-equipment of machine shops and new electric foundry plus two new warehouses and a canteen.

The chairman's statement with the report and accounts says that for the first three months of the current year sales have shown a considerable increase and the company has also obtained a contract for the supply of tractors to the Middle East worth a minimum of £3m.

The annual meeting is on Friday, March 4.

See Lex

Yearlings at 12⅛%

The coupon rate on this week's batch of local authority yearling bonds has risen from 11⅞ per cent. at par to 12⅛ per cent. issued at £99⅞. The bonds are due on February 22, 1978.

This week's issues are:— London Borough of Enfield (£1m.), Islwyn Borough Council (£½m.), Tunbridge Wells Borough Council (£½m.), London Borough of Newham (£½m.), City of Norwich (£½m.), Luton Borough Council (£½m.), North Wiltshire District Council (£½m.), Ashfield District Council (£½m.), Lichfield District Council (£½m.), Mansfield District Council (£0.3m.), Mole Valley District Council (£½m.), The Three Rivers District Council (£½m.), Radnor District Council (£½m.), Macclesfield Borough Council (£0.4m.), Borough of Blaenau Gwent (£½m.), London Borough of Lambeth (£1m.), City of Nottingham, Stirling District Council, Arun District Council, City of Bradford Metropolitan Council (£½m.), Buckingham County Council (£½m.), Borough of Hillingdon, London Borough of Hounslow (£½m.), Metropolitan Borough of Solihull (£½m.), London Borough of Barnet (£1m.), Chester-le-Street District Council, Eastbourne Borough Council (£½m.), Lanark District Council (£½m.), Leicester City Council (£1m.), City of Southampton (£1m.), Test Valley District Council (£½m.), Cheshire County Council (£1½m.), Middlesbrough Borough Council (£½m.), Morpeth District Council, East Hampshire District Council (£½m.), South Herefordshire District Council (£½m.), Ettrick and Lauderdale District Council (£½m.).

Herbert Morris tops £2m.

FOLLOWING A mid-term advance in taxable profit from £381,000 to £753,000 crane manufacturers Herbert Morris ended the year at October 31, 1976, £1,010,000 ahead at £2,165,000. Sales improved £7.24m. to £28.52m.

The directors state that orders in hand at the year end were lower than for 1974-75 due to Government expenditure cuts and a slow down in world-wide investment. However, further profit growth is expected in the current year.

Stated earnings per 50p share were higher at 34.1p (14p). As reported in October 1976, Treasury consent was obtained for an intended lifting of the dividend total for the year to 10p (6p) in the context of the now lapsed bid made in September by Babcock and Wilcox. As a result a second interim of 7p is being paid in lieu of a final.

	1975-76 £000	1974-75 £000
Sales	28,521	21,281
Pre-tax profit	2,165	1,155
Taxation	1,021	654
Minorities	1	26
Attributable	1,142	475
Retained	801	365

● **comment**

There is nothing surprising in the 87 per cent. jump in pre-tax profits from Herbert Morris, because the group had already forecast as much last December in defiance against the bid from Babcock and Wilcox, which has been referred to the Monopolies Commission. An answer from Mr. Hattersley is expected within three to four weeks and, assuming Babcock gets the all-clear to go ahead—it already has two-fifths of Morris's equity—the market is signalling that the company will up its bid: the shares closed last night at 130p, up 7p, which is way above the Babcock offer price of 112p a share. Babcock now reckons it might sit back and await the latest report and accounts. Morris is an expanding business and Babcock wants a more up-to-date idea of the company's requirements.

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Romney Trust up £62,500

For 1976 the net revenue of Romney Trust improved £62,500 to £708,106. Earnings per share were higher at 2.42p (2.23p).

A final dividend of 1.65p (1.45p) lifts the total for the year to 2.35p (2.15p).

The net revenue figure is struck after tax of £386,000 (£308,429). At year end net asset value per share was up at 117p (98.5p), or 111.1p (98.9p) fully diluted.

Overseas profits boost Macpherson to £2.7m.

[illegible]BLED profits from overseas [illegible]ations and export successes [illegible]ed Donald Macpherson Group [illegible]s pre-tax profit from £1.56m. [illegible] record £2.76m. for the 53 [illegible]s ended October 31, 1976. [illegible] halfway the figure was up [illegible] £0.44m. to £1.13m.

[illegible] year-end results reflect the [illegible]ision of Unerman Holdings, [illegible]ired in September, for one [illegible]th, in respect of which sales [illegible]unted to £0.86m. and profit [illegible]000. Group sales for the year [illegible]unted to £40.08m. (£32.01m.) [illegible]oking ahead, with a full [illegible]'s contribution from Uner-[illegible], a further increase in profits [illegible] earnings per share is ex-[illegible]ed, state the directors. For [illegible] year to March 31, 1976 Uner-[illegible] sales were £8.7m. and profits [illegible],000.

[illegible]nerman is continuing to per-[illegible] satisfactorily and in line [illegible] expectations, they add.

[illegible] final dividend is 1.8015p [illegible] capital increased by the [illegible]es issued in part considera-[illegible] of the Unerman acquisition, [illegible]ing a total of 2.3695, com-[illegible]d with 2.145p: basic earnings [illegible] 9.6p (5.9p) and fully diluted [illegible] (3.7p) per 25p share.

[illegible] the U.K., the overall level [illegible] demand was not greatly [illegible]rent from that of the pre-[illegible]s year but the strong and [illegible]easing demand for Cover Plus [illegible] paints continued and there [illegible] been some improvement in [illegible]eneral demand for in-[illegible]trial coatings in the latter part [illegible] he year, the directors state.

[illegible]he home market for building [illegible]ts has been inevitably [illegible]ressed by the recession in the [illegible]struction industry and cuts in [illegible]lic spending. The trade sales [illegible]ision responded positively to [illegible] challenge by switching its [illegible]duct marketing strategy to [illegible]re specialised higher margin [illegible] and it would probably be un-[illegible] The increased emphasis [illegible] given to export markets by [illegible] trade sales division in parti-[illegible] also paid off handsomely.

[illegible]verseas, substantial progress [illegible] made in all major markets. [illegible]ofits earned from overseas [illegible]rations effectively doubled [illegible] only a relatively modest con-tribution coming from exchange gains. Companies in Malaysia, Thailand, Trinidad and the Republic of Ireland all achieved record results.

At year-end shareholders funds amounted to £8.19m. (£8.2m.).

	1975-76 £000	1974-75 £000
Sales	40,084	32,008
U.K.	31,815	25,094
Exports	1,500	955
Overseas	6,769	4,779
Trading profit	3,251	2,061
Depreciation	364	296
Interest	141	209
Profit before tax	2,765	1,556
Taxation*	1,409	671
Net profit	1,347	885
Minorities	53	5
Attributable	1,294	880
Dividends	312	273
Extraordinary items:		
Goodwill acquisit'n w'od	1,294	5
Others	9	42
To reserves	18	432

* Includes U.K. corporation tax £1,197 (£663), overseas tax £212 (£171). † Loss. ‡ Goodwill arising on the acquisition of Unerman Holdings £1,234,000 has been written off as to £1,294,000 and the balance offset against the surplus arising on consolidation as at October 26, 1976, £219,000: as it is group policy not to maintain goodwill in the balance sheet. § Includes (1000) gain on disposal of land and buildings, less tax £22 (nil); U.K. regional development grants £27 (same); exchange gains on currency parity changes £30 (£50); rights issue expenses nil (£34).

● **comment**

Overseas and export growth have provided the main impetus behind Donald Macpherson's 77 per cent. rise in 1975-76 profits. These have produced sales rises of respectively 41 per cent. and 186 per cent. In the U.K. the retail and industrial divisions both enjoyed small increases in volume, but the automotive paints were static while trade sales went sharply into reverse. So far in the current year the U.K. trading position does not seem to have changed very much, and it would probably be unreasonable to expect the overseas markets to maintain the pace enjoyed in the previous year. However, Unerman, which contributed about £30,000 for one month last year, should chip in at least £0.4m. this time, putting the group on course for a full-year profit of around £3½m. So, despite the fact that following the Unerman acquisition gearing must have jumped from less than a fifth to perhaps 60 per cent., the shares at 50p where the yield is 7¼ and the p/e (fully diluted) is 5.3, seem to deserve their small premium over the other small independent paint companies.

RECENT ISSUES

EQUITIES

Amount Paid up	Latest Renunc. Date	1976/77 High	1976/77 Low	Stock	Closing Price p	+ or −	Div.	Times Covered	Gross Yield	P/E Ratio
[illegible]				Amalgamated Stores...						9.2
F.P.				Harrisons Malays[illegible]						
				[illegible]						
F.P.				[illegible]						2.6
				[illegible]						2.7

FIXED INTEREST STOCKS

Issue Price	Amount Paid up	Latest Renunc. Date	1976/77 High	1976/77 Low	Stock	Closing Price	+ or −
[illegible]					Adams Foods [illegible] Conv. [illegible]	100	
	F.P.				Agric. Mort. [illegible] 1976		
	F.P.				Agric. Mort. [illegible]		
	F.P.				Agric. Mort. [illegible]		
	F.P.				Agric. Mort. [illegible]		
	F.P.				Agric. Mort. [illegible]		
	F.P.				Agric. Mort. [illegible]		
					Amalgamated Stores [illegible] Cum. Pref.		
					Dunford & Elliott [illegible]		
					[illegible] Water [illegible] Pref. [illegible]		
					F.F.I. [illegible]		
					Mid. Kent Water [illegible] Red. Pref. [illegible]		
					Newman Inds. [illegible] Cum. Pref.		
					[illegible]		
					Williams & Glyn's [illegible]		
					[illegible]		

"RIGHTS" OFFERS

Issue Price	Amount Paid up	Latest Renunc. Date	1976/77 High	1976/77 Low	Stock	Closing Price p	+ or −
[illegible]					A.N.Z.		
					[illegible]		
					Bitter Ind'l		
					Standard [illegible]		
					National [illegible] of Australasia		
					Western [illegible]		
					Weeks Assoc.		
					[illegible]		

R Renunciation date usually last day for dealing free of stamp duty. a Placing price to public. b Figures based on prospectus estimate. d Dividend rate paid or payable on part capital, cover based on dividend on full capital. g Assumed dividend and yield. u Forecast dividend: cover based on previous year's earnings. F Dividend and yield based on prospectus or other official estimates for 1977. Q Gross. T Figures assumed. † Cover allows for conversion of shares not now ranking for dividend or ranking only for restricted dividends. § Placing price to public. pt Pence unless otherwise indicated. ¶ Issued by tender. ‖ Offered to holders of Ordinary shares as a "rights." ** Issued by way of capitalisation. †† Reintroduced. ¶¶ Issued in connection with reorganisation, merger or take-over. ‖‖ Introduction. □ Issued to former Preference holders. ■ Allotment letters (or fully-paid). • Provisional or partly-paid allotment letters. ★ With warrants. ◆ After suspension. ‡ Kuwait Dinar.

Investments benefits come to Aaronson Bros.

NOW THAT the largest programme of expansion ever undertaken by Aaronson Bros. has been completed at a cost of more than £5m. over the past two years, the predicted benefits of the cost savings and increase in production capacity are being realised, state the directors.

For the year ended September 30, 1976 pre-tax profit improved from £1.83m. to £2.36m. after being up from £0.9m. to £1.14m. at halfway.

And the first few months of the current year already show a substantial increase in profits over the previous comparable period. Subject to unforeseen circumstances the company should continue its growth and report a further material increase this year, the directors add.

Meanwhile further capital expenditure projects are still being examined and undertaken.

In previous years full provision has been made for the contingent liability of deferred tax. It has been decided that the amount already provided at October 1, 1975 is adequate for any liabilities that are likely to arise in the foreseeable future and therefore no further provision is necessary.

Stated earnings per 10p share for the year are 10.4p fully diluted. For 1974/75 they were 7.72p adjusted for the change in policy in dealing with deferred tax.

The net final dividend is 1.21519p—the maximum allowed—for a total of 1.76519p (1.60472p).

The company makes plastic laminates, edging materials, plywood and hardboard, wood veneers and chipboard.

	1975-76 £000	1974-75 £000
Group sales	21,570	17,765
Trading profit	2,338	1,817
Share assoc.	21	3
Profit before tax	2,359	1,820
Tax credit	*80	†716
Net profit	2,439	1,104
Minority holders	218	111
Attributable	2,221	993
Extraordinary debits‡	377	229
Preference dividends	130	130
Ordinary	342	312

* Arises from over provision in previous years. † Charge. ‡ Arise substantially from closure and relocation of production units.

● **comment**

A 30 per cent. increase in pre-tax profits from Aaronson Bros. fully lives up to outside estimates, with chipboard production becoming more competitive against ordinary wood. Despite setbacks in housebuilding, Aaronson has held its position (a 22 per cent. sales increase) with demand from the DIY market holding up very well and sales to the furniture market at surprisingly high levels considering the background of poor consumer spending. Undoubtedly the company's own rationalisation programme has been instrumental in improving the margins with some £5m. of capital expenditure over the last couple of years. But there is nothing surprising in the figures and the share price volatility—more than doubled since last October—has reflected continual bid rumours rather than trading prospects. The shares are not particularly attractive on their own merits at 55p with a p/e of 11¾ fully taxed, or 5.2 on the company's earnings.

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Advance for Evode to £1.45m.

BETTER pre-tax profit of £1.45m., a record, against £1.21m., is disclosed by Evode Holdings for the 52 weeks to September 25, 1976, after £0.57m. (£0.52m.) at half-time. The company makes adhesives and jointing compounds.

Earnings are shown to be up from 7.44p to 8.61p per 20p share for the year and the net dividend total is up from 1.916p to 1.988p with a final of 1.338p.

	1975-76 £000	1974-75 £000
Turnover	18,763	14,872
Share assoc.	47	33
Pre-tax profit	1,450	1,208
Tax	770	616
Extra-ordinary credit	15	†83
Minorities	5	—
Retained	587	416

Debit.

● **comment**

Evode's concentration on specialist products for the building, DIY and furniture industries can take most of the credit for its 1975-76 progress—profits are 20 per cent. higher before tax. The growth seems to stem entirely from increased market penetration in these areas, rather than any improvement in trading conditions. This is particularly true on the building materials side, where despite adverse conditions generally, the group's waterproofing products enjoyed substantial sales growth. With the overall trading outlook now better than a year ago the group should be poised for further expansion. This seems to justify the current rating of the shares at 52p where the yield is 6.0 per cent. and the p/e is 5.9.

Ramar reaches £0.13m. after six months

Turnover at Ramar Textiles increased from £2.77m. to £3.55m. in the half year to October 31, 1976 and profit improved from £74,202 to £134,800 subject to tax of £70,096, compared with £39,795.

The directors report that year-end results should be considerably better than last year's £200,655.

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BOARD MEETINGS

The following companies have notified dates of Board meetings to the Stock Exchange. Such meetings are usually held for the purpose of considering dividends. Official indications are not available whether dividends concerned are interims or finals and the sub-divisions shown below are based mainly on last year's timetable.

TO-DAY

Interims: John James Group of Companies, Throgmorton Secured Growth Trust, Joseph Webb.

Finals: Albright and Wilson, W. W. Ball, Carrington Viyella, Colonial Securities Trust, Cornell Dresses, Edinburgh and Dundee Investment, Foreign and Colonial Investment Trust, Robert R. Stockfis (Manchester), Yeoman Investment Trust.

FUTURE DATES

Interims—

Ayer Hitam Tin Dredging Malaysia ... Mar. 3
Footwear Industry Investments ... Feb. 21
Garford-Lilley Industries ... Feb. 17

Finals—

Braime (T. F. and J. H.) ... Feb. 21
English and Scottish Investors ... Feb. 21
First Scottish American Trust ... Mar. 1
Fisons ... Mar. 3
Hoover ... Feb. 24
Lamson Industries ... Feb. 25
Provident Financial ... Feb. 21
River and Mercantile Trust ... Feb. 17
River Plate and General Inv. Tst. ... Feb. 17
Vosper Thornycroft ... Feb. 22
Woodhouse and Rixson ... Feb. 28

Increase at Meldrum Trust

Net revenue of Meldrum Investment Trust for 1976 rose slightly from £324,656 to £359,095, after tax of £216,938 against £194,870.

Earnings per 25p share are shown as 1.78p (1.61p), and the final dividend of 1.125p net lifts the total from 1.5p to 1.65p.

Net asset value per share is 42.3p (45p).

Investors Capital Trust

The policy objectives published yesterday for Investors Capital Trust were historical. They were implemented in February 1974 and the review period to November 30, 1976 was the second full year of operations under the new investment policy.

For 1975/76 pre-tax profit was £1.44m. (£1.21m.) and the recommended dividend total is 1.2p net per 25p share, compared with 1p the previous year.

Mr. John Chiene, chairman, tells members in his annual statement that revenue in the current year is expected to rise appreciably and to allow the possibility of a further increase in dividend.

Overseas investments, which account for more than 70 per cent. of funds, have to a large degree protected shareholders from the fall in sterling—the directors intend to maintain their flexible investment policy which they believe to be vital to the aim of achieving capital growth.

24% rise at Cable Trust

ON GROSS REVENUE of £9.7m. against £7.74m., net earnings of Cable Trust for 1976 rose 24 per cent. from £4.13m. to £5.12m., after tax of £3.28m. (£2.73m.). The sum of £615,289 (£488,435) was added to reserves.

The dividend is stepped up from 4.8p to 5.7p net per 25p share with a final of 3.7p, from stated earnings of 6.478p (5.217p) basic or 6.336p (5.139p) fully diluted.

Net asset value per share at the year end was 158.25p (162.625p), and allowing for full conversion of Loan stock, 156.375p (160.625p).

ARTAGEN PROPS.

Holders of Artagen Properties' 6 per cent. debenture stock 1980-85 and 6¾ per cent. unsecured loan stock 2003/2008 have approved repayment of the stocks.

BIDS AND DEALS

More Milgo shares for Racal

Racal Electronics announces that pursuant to its current offer for Milgo Electronic Corporation, of $36 a share, it has been advised that about 50,000 shares have been tendered.

These, together with some 773,000 shares which Racal purchased pursuant to its offer which expired on February 4, 1977, amount to about 48 per cent. of Milgo's outstanding common stock based on 1,176,595 shares outstanding as of February 9 last.

Racal's current offer is scheduled to expire on February 16 at 10.00 a.m. New York City time unless extended. Withdrawal rights with respect to the current offer will also expire at that time.

Applied Digital Data Systems Inc. last announced that 803,000 Milgo shares had been tendered to it.

SHARE STAKES

Mr. E. S. Nassar has acquired a further 235,000 Ordinary shares in Jantar giving him a total interest of 27 per cent.

Energy Finance and General Trust has been advised that Edward Bates and Sons (Holdings) and its subsidiaries disposed of the following shares in the company: 425,830 capital shares, 129,063 income shares and 53,229 Preference shares on January 27.

SMURFIT PAYING £3.2M. FOR REST OF TIME INDS.

Jefferson Smurfit, the Irish packaging, printing and distribution group, is to acquire the outstanding 49 per cent. of Time Industries Inc. of Chicago for a total consideration of $5.5m. (£3.2m.).

Time, which makes plastic and corrugated containers, showed a 27 per cent. increase in turnover in 1976 to a total of $39m. It is estimated that pre-tax profits were $3.2m.—up 33 per cent. on the previous year.

The consideration accepted for the outstanding shares ranged from $8 to $9 cash a share; part of the consideration is to be paid over five years at approximately 6 per cent. interest.

Smurfit increased its stake in Time from 48 to 51 per cent. last year.

MERU/JOHN MADDOCK

Meru Group is to acquire 51 per cent. of the Ordinary shares of pottery manufacturers John Maddock and Sons and has obtained an option to acquire the balance.

The consideration will be satisfied by allotment of 200,000 Meru shares. The balance may be acquired under an option exercisable by April 30, 1980, for a total consideration equal to the greater of £100,000 and 49 per cent. of three and a half times the pre-tax profit of Maddock for the accounting year last completed before the exercise of the option. Meru will also offer for the Preference shares if it exercises the option.

The acquisition is part of the programme planned by Meru for the creation of an Anglo-American pottery group with manufacturing capacity on both sides of the Atlantic.

Net assets of Maddock at January 31, 1976, were about £240,000 but losses of about £55,000 were incurred for six months to July 31, 1976.

SIMON FOOD ENGINEERING

Simon Food Engineering Group has purchased the drawings, designs, stocks and work in progress of J. W. Greer, which went into voluntary liquidation in July 1976. The acquisition is an extension of Simon Engineering's business in the bakery and confectionery machinery sector in which it has been active for many years through Simon-Vicars.

A new company, Simon-Greer has been formed with its HQ at Earlestown, Merseyside.

WATSON & PHILIP ACQUISITION

Watson and Philip, the Scottish food distributors, have acquired, with effect from February 14, 1977, the cash and carry trading operation previously carried out at Clydebank by Progress Cash and Carry.

W. and P. have acquired the fixed assets and stocks less related liabilities from Progress and the heritable property from its parent company Bisset Investments.

The total consideration is £[illegible]8,734 cash.

Profits before tax of Progress for the year to January 31, 1976 were £2,125. An improvement in profits has taken place since and it is expected that the acquisition will enhance the W. and P cash and carry operations in Scotland.

STAVELEY/GEORGE SALTER

Acceptances received by Staveley Industries in respect of its offer for George Salter totalled 98.2 per cent. of the Ordinary and 91.3 per cent. of the Preference. The offer has become wholly unconditional and remains open until further notice.

SMC/PE TALKS OFF

Science Management Corporation, the U.S. group, is not to proceed with its plan to acquire a controlling interest in P-E International, the U.K. management consulting group. A statement issued yesterday said that the preliminary discussions between the two groups had been terminated.

NO PROBES

The proposed mergers between Staveley Industries and George Salter and Co.; Argo Group and Williams Hudson Group; Deltec Trust Co. with LET International and The Antofagasta (Chili) and Bolivia Railway Co.; Ashdown Investment Trust and Westpool Investment Trust and Telephone and General Investment Trust and Temple Bar Investment Trust will not be referred to the Monopolies Commission.

UNOCHROME

Unochrome International has been notified by Jorehaut Holdings of the purchase of 50,000 shares increasing its holding to 3,585,000 (21 per cent.) and by Bernard Owens and Partners of the purchase of 35,000 shares increasing the number controlled by Mr. and Mrs. B. C. Owens to 710,000 (4 per cent.). Mr. Bernard Owens is chairman and managing director of Unochrome.

PLANTATION HLDGS.

Imhof-Bedco, the light engineering division of Plantation Holdings, has acquired, from private interests, the whole of the capital of Cranleone, Nuneaton, precision engineers, metal fabricators and toolmakers, for £150,000.

ASSOCIATE DEALS

James Capel has bought 2,300 White Child and Beney at 65p non-assented, on behalf of Arthur Guinness Son and Co.

Cazenove and Co. on behalf of Consolidated Gold Fields has bought 10,000 British Borneo Petroleum at 140p.

Hedderwick Stirling Grumbar purchased on February 11, 5,000 Beaver Group Ordinary shares at 45p for a director of Beaver Group.

APPOINTMENTS

CONTRACTS AND TENDERS

TRAVEL

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PUBLIC NOTICE

MINING NEWS

Comalco boosts 1976 profits

BY KENNETH MARSTON, MINING EDITOR

DESPITE the company's cautious comments in November, second half 1976 earnings of the Rio Tinto-Zinc group's Australian aluminium producer, Comalco, have continued to stride ahead. As a result, consolidated net profits for the full year have expanded to $26.4m. (£16.9m.) compared with only $6.3m. in 1975 and $17.3m. in 1974.

Comalco has decided to announce its final dividend later this month and will send out the annual report on March 28. At the 1976 half-way stage, when net profits had reached $3.4m., the company declared an interim of 2.75 cents. For 1975 there was an interim of 1.25 cents followed by a final of 1.5 cents.

Higher prices, notably on primary metal sales to international customers, provide the main reason for Comalco's sharply increased earnings and the rise in gross sales revenue to $329m. (£211m.) from $286m. in 1975. Shipments, both of bauxite and metal, were slightly lower than in 1975.

Bauxite production, however, rose by 100,000 tonnes to a record 9.65m. tonnes, while that of primary metal expanded to 160,498 tonnes from 137,544 tonnes; the latter increase has followed the re-starting of idle capacity at the Bell Bay smelter in Tasmania and the completed expansion of the Bluff smelter in New Zealand.

Comalco also says that Australian Government legislation is to be introduced to allow a deduction for income-tax purposes to reflect the effect of reflation on inventories. RTZ's 72.6 per cent-owned Conzinc Riotinto of Australia holds 45 per cent. of Comalco, the shares of which were 10p up at 210p yesterday.

Northgate loses $0.6m.

FOLLOWING a poor fourth quarter when there was a loss of $611,000 (£352,000), Canada's Northgate Exploration reports a consolidated net loss for 1976 of $598,000 (£344,000), or 9 cents (5.3p) per share. This compares with a re-stated net income of $1.49m., or 23 cents per share, for 1975.

Northgate points out that the poor performance in 1976 mainly reflects the termination of the Irish Gortdrum copper mine operations in the latter half of 1975; in that year Gortdrum contributed $976,000 to Northgate's net income in addition to a profit of $584,000 from the disposal of fixed assets following the closure of the mine.

Other adverse factors have included higher exploration expenses and an increase in the parent company's share of losses incurred by the associated companies. Northgate were 375p yesterday.

WESTERN AREAS

A major step towards controlling a fire which started on January 28 has been taken at the Western Areas section of the Western Areas gold mine in South Africa. Access to the fire has been gained and a spokesman said that ventilation seals are being installed.

Once this work has been completed an attempt will be made to increase the ventilating current through the mine as a prelude to resuming mining operations. Since the fire started mine production has been concentrated on the Elsburg section of the mine.

The shares of Western Areas, which is part of the Johannesburg Consolidated Investment group, were 124p yesterday.

AZCON PROFITS SHOW GROWTH

Net income from the Consolidated Gold Fields' U.S. steel and metals business, Azcon, continues to increase. Earnings in the half year to December were $4.8m. (£2.8m.) or 93 cents a share, compared with $4.07m. or 83 cents a share in the same period of 1975.

Income from Azcon's continuing operations in the December quarter was 50 per cent. more than in the same quarter of 1975 at $947,000, but sharply down from the $2.02m. recorded in the September quarter of 1976.

The disparity is explained in two ways. The gain over 1975 was caused by the acquisition of the Hyman-Michaels metals business, but the decline from the September quarter came about because of seasonal factors and a weak market for some steel products.

Meanwhile construction of a coal-fired direct reduction plant in Tennessee continues and the start-up should be in the late summer.

Talks for an agreement on sea mining

An informal conference in Geneva next month will make a major effort to break the deadlock in the UN Law of the Sea Conference between the industrial and developing nations on the type of regime necessary to control the exploitation of the ocean floor.

The chairman will be the Norwegian Minister for the Law of the Sea, Mr. Jens Evensen. Invitations have been sent to 158 countries. The next formal session of the Law of the Sea conference starts in May. Its latest session ended last September.

The UN Secretariat will be represented in Geneva by the Under-secretary General, Mr. Bernardo Zuleta, who said in New York, "The situation seems ripe now for a real effort to find a compromise."

The main question to be faced, he added, is "who should exploit and under what political framework the first mining operations will be approved for exploitation."

ROUND-UP

The Philippines gold producer, Benguet Consolidated, reports 1976 earnings of $2.59m. (£1.53m.), or 16 cents (9.4p) per share, compared with $6.37m. in the previous year. The company has been hit by weakness in gold and copper prices but the president, Mr. Jaime V. Ongpin, reckons that the Philippine Government's new five-year gold subsidy and promising development targets for higher grade ore will ultimately restore profitability to gold operations.

*

America's Amax and Australia's Endeavour Oil have had to completely revise the economics of their Forrestania nickel prospect in Western Australia following the results of drilling at the Flying Fox prospect near the Cosmic Boy prospect, it is stated. A new feasibility study is to be started shortly.

*

Plans to spend up to $A3.5m. (£2.2m.) on the next stage of exploratory development of the Mackintosh zinc-lead prospect at Que River in Tasmania are announced by the Abminco subsidiary of Aberfoyle. It is expected that the work will take between 12 and 18 months. Equity interests in the joint venture are: Abminco 63 per cent.; Conzinc 27 per cent.; and Paringa 10 per cent.

MINING BRIEFS

NEW GUINEA GOLDFIELDS—Production for January: Golden Ridges Mill: Milled 5,157 tonnes ore assaying 0.085 per cent. Fine gold produced 336.6 ounces. Eddie Creek: Fine gold produced 20.7 ounces. Fine silver produced 17.6 ounces.

WESTERN MINING—Four weeks ended February 3 (previous four weeks in brackets). Kambalda: ore treated 110,098 tonnes (95,749). Nickel concentrate produced 22,313 tonnes (21,390), grade 12.87 per cent. Scotia Nickel Mines ore treated 8,262 tonnes (7,273) produced 640 tonnes nickel concentrates (355) grade 14.57 per cent. (13.99). In addition 7,729 tonnes of concentrate assaying 10.54 per cent. nickel was produced at the Windarra nickel project of which the company's share is 30 per cent. Central Norseman Gold treated 13,579 tonnes for 7,395 fine ounces gold and Kalgoorlie Mining Associates treated 32,070 tonnes for 4,913 fine ounces gold.

New Gilt Bond from Gresham

By Eric Short

Gresham Life Assurance Society, the life company subsidiary of N. M. Rothschild and Sons, has launched the Gresham Life Gilt Bond in association with N. M. Rothschild Asset Management. This is a single premium life bond linked to a new gilt-edged fund which will be managed by Rothschild. The fund aims at maximising capital performance by reinvesting the current high income obtainable in the gilt-edged market and by pursuing an active investment policy by moving out of gilts into the money market when a short-term rise in interest rates is foreseen and moving back into gilts when a fall is expected.

The first subscription day for the bond is March 2, 1977, and the minimum investment is £1,000. The life assurance benefit varies with age from £2,500 per £1,000 invested at age 30 or less to £1,010 at age 80 or over. The initial charge is 5 per cent. and the annual charge 1 per cent.

The company has also introduced a new scheme for the repayment of a house mortgage—Mortgagemaster—designed to provide a flexible method of repayment at a low initial cost. The basic plan used the Guaranteed Benefit Endowment Assurance—Gresham's non-profit contract and the investor takes out sufficient units to cover the amount of the mortgage.

If the investor effects a fresh mortgage, he can vary the term of the scheme to cover the new mortgage term and effective further units of the Guaranteed benefit up to a maximum of £25,000 or twice the initial sum if smaller, both without evidence of health, to cover the new amount borrowed. The units can also be converted into with-profit contracts on any anniversary after the second so that the investor can combine savings with mortgage repayment. The plan can be arranged on a joint life basis payable on the first death of husband and wife.

Resignations at Hazlewoods

Mr. Herbert Towning, chairman, and a fellow director Mr. Peter Alphonso Davis, have resigned from Hazlewoods (Proprietary), the Derby based manufacturers of pickles and sauces.

Hazlewood's shares were suspended in December at 18½p pending details of a proposed re-organisation of the group. In the year to March 31, 1976, the group lost over £200,000 but the chairman said later that first-half results to September 30, 1976, show "a considerable improvement."

Simons & Co. profit

A turnaround from a loss of £33,170 to a pre-tax profit of £103,430 was achieved by fruit and vegetables brokers Simons and Co. for the year ending June 30, 1976.

Earnings per £1 share are 15.08p against a loss of 23.56p and a dividend of 5p net is announced, the first since 1973 when the total was 8.75p.

The directors state that this autumn and winter the company has had to contend with another season of reduced supplies of home-grown vegetables and more expensive imports owing to the weakness of sterling. It is not possible therefore to forecast what the profit might be for the current 15-month period.

	1975-76	1974-75
	£	£
Turnover	12,137,642	10,270,407
Interest, etc.	30,438	45,281
Pre-tax profit	103,430	†33,170
Tax	65,391	6,075
Attributable	38,039	†39,245
Extra-ord. credits	—	45,557

† Loss.

Christian Salvesen up £1½m. to £6.25m.

PROFITS OF Christian Salvesen, the unquoted house building, cold storage, fish and shipping group, jumped from £4.74m. to £6.29m. in the year ended September 30, 1976; but for the current year the directors warn of a lower result.

The profit for 1975-76—achieved on a turnover up from £76.9m. to £89.48m.—was struck after an increased loss of £434,000 (£234,000) by associates. Earnings per £1 share are stated to be up from 18.9p to 26.7p, excluding extraordinary items. The dividend is raised from 7.2765p to 8p, with a final of 4.5385p.

As regards 1976-77 the directors expect the trading profit to be similar to last year but, if anything, lower. The share of loss of the associated company—Salvesen Offshore Holdings—is certain to be substantial and, unless rates fall sharply, interest charges will be higher.

Taking everything into account they anticipate a fall in the pre-tax profit though there should still be sufficient, after tax, to cover dividends at the present level.

Looking further ahead, they feel confident that the group will maintain growth.

	1975-76	1974-75
	£000	£000
Turnover	89,476	76,897
Trading profit	9,661	8,800
Interest	3,590	4,232
Share of associates loss	434	234
Investment income	668	414
Pre-tax profit	6,294	4,737
Taxation	3,251	2,375
Minorities	51	26
Extraordinary debit	225	†1,993
Retained	1,729	2,179

† Credit.

GLASS GLOVER DIVIDEND

Following advice recently received the Board of Glass Glover Group has found it necessary to give further consideration to the effect on the company of close company provisions in relation to year ended September 30, 1976, and now proposes to recommend a second final dividend of 0.3568p net in respect of that year. This second final will result in a total of 1.1p (0.8757p) for year.

Pru. cuts annuity rates

The Prudential Assurance Company, the largest life company in the U.K., has reduced its immediate annuity rates right across the board by £4 per annum for each £1,000 of purchase money. This move reflects the recent rise in the gilt-edged market, with a corresponding fall in yields. Annuity rates are closely tied to the returns available from medium-term gilt-edged stocks.

Under the new rates, an investment of £10,000 will secure an annuity of £1,685 per annum, payable in half-yearly instalments, for a man aged 65 or £1,597 per annum on a woman of the same age.

مكبرا من الاصل

● STEEL STOCKHOLDING

What happened when the beer ran out

BY ROY HODSON

...C CLUB had two new ...bers, both hefty and ...tive chaps. Their free-...ting and the way they ...spoilsed the barmaid's ...tion caused eyebrows to ...). Then on top of it all the ...ran out. Consider how the ...members felt about it all you will have some idea of ...it is like to be a steel ...holder in Britain these ...

...N went on a six-year buying spree among the stockholding companies which culminated with the European ...mission agreeing in 1974 ...GKN should be allowed to ...hase the big Miles Druce ...pany. That made the GKN ...stock, the new grouping, ...e largest stockholder in ...in with approaching one-... of the market.

...itish Steel Corporation was ...lly impressed with the ...ness opportunities in steel ...holding. It had inherited ...est stockholding interests ...a £10m.-a-year turnover ...pre-nationalisation days. ...corporation began to build ...up and its new stockhold-...company called British ...Service Centres (BSSC) ...into action in March 1975. ...chases of other businesses ...e then have taken BSSC ...the top rank of stockholders alongside GKN Steel-...k. Now GKN Steelstock has ...urnover of £150m. a year and ...C is doing £140m. which ...udes a big European opera-...

As far as the home ...rket is concerned Mr. Cliff ...ler, the director in charge of ...C, puts the target bluntly: "We are shooting at 15 per cent. of the stockholding market in Britain across the board."

That aspiration has provoked alarm in the stockholding industry. For, while BSSC is already up to its market target in many product areas, it is still weak in the crucial general steels trading sector where it holds only about 1 per cent. of the market. There are two ways for BSSC to build up its general steel stockholding. It can acquire other companies in the trade. Or it can set up new stockholding facilities and hire teams of salesmen to carve out business from the existing market.

Those alternatives have become well understood in the stockholding business during the last few months. Word was passed through the fraternity that companies wishing to be acquired and suitable for BSSC's planned expansion might kindly present themselves at Mr. Keeler's office, Whitehall House, Halesowen, West Midlands. Meanwhile BSSC was already recruiting salesmen in the autumn for some key regions including the Midlands, the North East, and the Manchester area to tackle the general steels market.

That was the point when the beer ran out. The expected recovery of steel demand in 1976-1977 failed to happen. Production is now exceeding demand all over western Europe. Stockholders are over-stocked.

Not even the British Steel Corporation can summon up much enthusiasm for quickly expanding its stockholding business while the market is dead. The impression among stockholders is that the corporation will temporarily defer its ambition to secure 15 per cent. of the general steels market.

BSSC may simply mark time in steel stockholding. Or it may continue to grow slowly by making acquisitions if the current harsh trading conditions drive one or more general steels stockholders to seek shelter under the BSSC umbrella. Either way the state of affairs can be no more than transient. In the longer-term BSSC will pursue its ambition until it has secured its 15 per cent. share of general steels stockholding. BSSC and GKN will then together hold one-third, perhaps more, of the total British steel stockholding business which currently is a market of some £700m. a year.

GKN, itself a steelmaker, is a large customer of the steel stockholders: GKN engineering works do not have special arrangements with GKN Steelstock for steel supplies. For both reasons GKN activities therefore are of special interest to the independent stockholding companies.

BSSC also worries the stockholders for two reasons. The acquisition of the desired BSSC stake in general steels will involve taking over or setting up companies generating £50m. a year turnover.

And the parent of BSSC—British Steel Corporation—supplies almost 60 per cent. of the steel used in Britain. So far the independent stockholders do not appear to have any grounds for complaint that the corporation has ever given special treatment to BSSC. But the possibility cannot be eradicated from the minds of those in the business.

The man ultimately responsible to the British Steel Corporation Board for the policy of moving into steel stockholding is Mr. David Waterstone, BSC commercial director. Asked the reasons for the BSC's new policy towards stockholding he gives the following:

● "Before we entered the stockholding market half a dozen stockholding firms outside BSC could affect 45 per cent. of our home market.

● "As a commercial director, I can appreciate that it is bad for our business to lose touch with the far end-points of our markets. The new stockholding business provides that essential link.

● "There is no doubt that having a big stockholding business helps up to enhance our market clout a lot."

● "There is a sound profit motive. We expect to make good commercial profits from our stockholding activities when they have been built to the size we consider right."

So far BSSC's profits have had only a negligible impact upon the finances of the British Steel Corporation. However, Sir Charles Villiers, chairman of the corporation, is a man who puts profits high in his order of priorities and BSSC is being called upon to be profitable during its growth period. Mr. Keeler is working to directions to secure a 20 per cent. return upon capital over a rolling five-year period. Last year, a very poor year for the steel industry, BSSC returned £900,000, on employed capital of £40m.

BSSC is intended to be a small co-ordinating organisation for BSC stockholding activities with the member companies acting as trading arms under their own names. The intention is that BSSC itself should keep a low profile. But on one matter both Mr. Keeler and Mr. Waterstone speak loudly and emphatically. They say that none of their stockholding operations receive any special treatment from BSC steelworks in any shape or form whatsoever.

At GKN Steelstock, Norman Richards, the managing director, says GKN has gone into steel stockholding for three basic reasons:

● "It is a developing necessity for the country and one which fits in with other GKN activities."

● "We felt when we entered the industry that it was ready for restructuring."

● "Steel stockholding provides an excellent opportunity for a business to make money."

Mr. Richards says that it is both inevitable and right that structural changes should be occurring in British steel stockholding. The British market, he says, must run more nearly in parallel with the Continental Europe market. In consequence it must become more price-orientated.

GKN Steelstock companies are not the cheapest suppliers but they make a point of reliability and ability to continue to supply customers during periods of shortages. BSSC can be expected to work in the same way. Mr. Keeler, of BSSC, is himself an old Miles Druce man.

The net effect of the two big steel stockholders, both selling mainly home-produced steel, could be to encourage a swing back to home products rather than imported products throughout the stockholding business. Many stockholders began importing steel when the BSC was unable to supply them two years ago.

The recession in steel demand has made it increasingly unlikely that BSSC will complete its expansion in the stockholding market by setting down greenfield sites in the foreseeable future. BSSC would much prefer to develop in general steels stockholding by acquiring willing partners from among the ranks of the stockholders.

But if no partners come forward when the market picks up, Mr. Keeler will consider alternatives. He cannot appear to stick with just 1 per cent. of the general steels stockholding market.

TOP BRITISH STEEL STOCKHOLDERS

		Capital Employed (£1,000)
1.	GKN Steelstock (GKN subsidiary)	41,184
2.	British Steel Service Centres (BSC subsidiary)	28,900
3.	Glynwed Distribution (Glynwed subsidiary)	22,885
4.	C. Walker & Sons	15,550
5.	Brown & Tawse	11,279
6.	Dunlop & Ranken (600 Group subsidiary)	8,004
7.	Markland & England (Tube Investments subsidiary)	7,899
8.	Ash & Lacy	5,802
9.	Danks Gowerton	4,550
10.	John Williams of Cardiff	4,472
11.	Hall & Pickles (Hall Engineering subsidiary)	4,212
12.	Barrow Hopes (Tube Investments subsidiary)	4,014

Source: Greene & Co., Stockbrokers

...POINTMENTS

Two Furness Withy executives join Board

...r. J. E. Keville and Mr. ...A. L. Roberts have been ...ed directors of FURNESS ...HY AND CO. Mr. Keville is ...executive of the group's ...shipping division. Mr. ...erts is managing director of ...chester Liners, a member ...pany. London, has already taken up residence in Dubai. Mr. Alan Wren, who will shortly take over the responsibilities of chief manager gulf, the Chartered Bank, has joined the Board of Oryx. Mr. L. J. McNelle of Arbuthnot Latham, has been appointed manager of Oryx.

★

...Len Murray, TUC general ...tary, has been appointed a ...ee of the ANGLO-GERMAN ...NDATION FOR THE STUDY ...NDUSTRIAL SOCIETY, often ...n as the Heinemann Founda-... The appointment is for ...years and is unpaid. Mr. ...ray succeeds the late Lord ...her as one of the British ...rnment's six nominees. ...e foundation was set up after ...German President Heine-...n paid a state visit to Britain ...972. Its purpose is to probe ...dems and stress-points in ...ern industrial society, with ...entration on problems com-...to Britain and Germany.

★

...r. Z. Niewiarowski will suc-... Mr. H. G. A. Hooft as chief ...utive of ORYX INVEST-...NTS, the Arab-British ...chant bank based in Dubai, ...April 1. Mr. Niewiarowski ...is a director of Oryx and of ...uthnot Latham and Co. in

Mr. Jon Prudence has been appointed to the Board of RICAS, a member of the Offrex Group.

★

Mr. G. R. Digby and Mr. W. H. Morris have become directors of SPHERE DRAKE (UNDERWRITING) a subsidiary of the Alexander Howden Group.

★

Mr. Malcolm W. Brown has joined STANLEY ROSTRON (INSURANCE BROKERS) as a director. He was previously with the Legal and General Assurance Society.

★

Mr. Tom Rees has resigned as director of the RUNNYMEDE TRUST to take up a senior research post in the Home Office. Acting director of the Trust is Usha Prashar.

★

Mr. S. M. Pearce has been appointed to head buying and marketing at HALFORDS from July 1, reporting to Mr. Melville Johnston, the new chief executive. Mr. Pearce is a director and general manager of member company Maccess and he will retain responsibility as chief executive of that concern with Mr. K. J. Widdowson taking day-to-day control as general manager.

★

Mr. Peter Ayrton has been appointed a director of SEALED AIR INTERNATIONAL CORPORATION.

★

Mr. C. M. Sasserath, Mr. M. R. Coombs and Mr. A. Pett have been appointed directors of the newly-formed WIGHAM POLAND TECHNICAL SERVICES.

★

Mr. R. P. Cuthbertson, general manager of J. R. FORRESTER AND COMPANY, has been appointed a director.

★

Mr. Paolo E. Franceschi, Mr. Richard J. Halcrow, Mr. Jose L. Prieto and Mr. Francois C. Rahm have become regional managers of LIBRA BANK. Mr. Kenneth B. Ramsay has been made senior manager, operations.

★

Mr. Ron Mitchell has been appointed production director of SMITH BROTHERS (WHITEHAVEN) in succession to Mr. J. P. Dubig who has become chairman and chief executive of Arnold Cellophane Corporation in Miami, Florida.

★

Mr. J. D. M. Cooper has been appointed as a director of HAMPTON GOLD MINING AREAS.

★

Lord Harmar-Nicholls is to become president of the FEDERATION OF WHOLESALE AND INDUSTRIAL DISTRIBUTORS.

★

Mr. R. J. Miskin has become secretary of the INSTITUTION OF PRODUCTION ENGINEERS.

★

Mr. S. Morgan, company secretary of THOMAS FRENCH AND SONS, has been appointed a director.

★

NORDIC BANK, London has made the following appointments: Mr. Ronald G. Cain, manager, securities department; Mr. Ronald I. Petford, manager, customer relations and loan administration; and Mr. Bo S. B. Fröjd, regional executive for Sweden.

★

Mr. W. A. Airey is to become chairman of WEEKS TRAILERS and will be succeeded as managing director by Mr. K. Scarfe. Mr. P. George will be sales director. The changes are effective from February 21 and follow the appointment of Mr. Airey as chairman of the holding company, Weeks Associates.

★

Mr. Anthony Cross and Mr. Geoffrey Barnard have joined the Board of HORNCASTLE CRAWFORD AND WEST, a division of Common Brothers, and formed a new division to handle North American non-marine business. Both were previously with Antony Gibbs Sage. Mr. Daniel Gardiner, chief accountant with Horncastle, and Mr. Clive Wilson, chief broker, have been appointed associate directors.

★

Mr. J. N. Thornely has been appointed managing director of INDUSTRIAL MOTIVATION. The company was formed last year to market the Quid-Each-Day incentive scheme where employees are mobilised to fight rising costs and are encouraged to eliminate unnecessary waste from their own jobs.

★

Mr. Chris Bainbridge is joining THE ANNEX (a member of the Garrett Group of production companies) as managing director. He takes over from Roberta Aarons, who is leaving the company for family reasons and will be associated with it on its documentary film side when she returns to work.

★

Mr. David S. Van Pelt has been appointed senior vice-president by CITIBANK NA. He is based in London.

★

Mr. John R. Storar has been elected an additional deputy chairman of the ASSOCIATION OF INVESTMENT TRUST COMPANIES. Lord Remnant and Mr. G. A. Stout continue as deputy chairmen.

★

Mr. Norman Phillips, company secretary to JOHN WILLIAMS OF CARDIFF, has been made a director.

★

The CRYSTAL ORGANISATION, car distributors, has made three appointments to its main Board, Mr. J. M. Byers (service), Mr. J. P. S. Thomas (sales), and Mr. T. Watson (administration).

★

Mr. Peter C. H. Cook will be appointed to the Board of SIMON ENGINEERING on April 1 as finance director. He will be leaving Tube Investments, machine division, Coventry, where he has been divisional finance director and executive chairman of two operating companies.

★

Mr. Malcolm D. Cogan has been appointed managing director of STANNAH LIFTS (LONDON). Mr Cogan started with Stannah as an apprentice then went to Otis for 17 years.

HOME CONTRACTS

BR lime freight order for £2m.

BRITISH RAIL FREIGHT has won a contract from the British Steel Corporation worth more than £2m. over the next four years to deliver 170,000 tonnes of lime annually. The lime, used in the basic oxygen steelmaking process, will go by rail from the Tunstead quarry of ICI to BSC's Port Talbot steelworks.

★

FREDERICK COYLE AND CO., part of the Walter Lawrence Group, has been awarded a £173,000 contract for a factory extension at Chessington, Surrey, for Engelhard Industries.

★

ARC CONCRETE has been awarded a £120,000 contract to supply precast concrete pipes and manhole units for the final link of the M18 in Yorkshire. The order, placed by Dowsett Engineering Construction, also includes flexible-jointed pipes up to 180 mm. in diameter.

★

The Grangemouth branch of the PHOENIX TIMBER COMPANY has received from Crane Fruehauf Containers an order worth more than £70,000 for Plymetal container door panels, to be delivered over the course of the next few months.

★

SINDALL CONSTRUCTION, a member of the Sindall Group, has been awarded the Thames Barrier contract 5A by the Greater London Council. Worth around £6m. this will consist of onshore works in connection with the Thames barrier project over nearly four years.

INTERNATIONAL FINANCIAL AND COMPANY NEWS

AMRO profit rises by 14%

BY MICHAEL VAN OS AMSTERDAM, Feb. 15.

AMRO BANK, Holland's second largest commercial banking group, stated ahead of its annual report here to-night that total net profits amounted to Fls.184.2m. in 1976, representing an increase of 14.2 per cent. on the previous year's figure. The 1975 increase was 27.9 per cent., excluding the contribution of Pierson, Heldring en Pierson.

Last year's relatively modest profit improvement will enable the company to raise the 1976 by Fls.0.30 per share. Already in early August, the bank stated that although the year's profit trend would be "satisfactory," the rate of increase would remain below the 37 per cent. jump recorded in the first half of 1976. The first half's profits rose to Fls.88.8m. (Fls.64.8m.).

To-night's statement, the first of the commercial banks to publish its annual results, added that total revenue had risen by 11.9 per cent. to Fls.1.59bn. in the past year, while expenses, including depreciation, were up 10.7 per cent. to nearly Fls.1.18bn. Gross profits, therefore, increased by 15.2 per cent. to Fls.413.8m.

Amro's statement said that the sum transferred to the provision for general contingencies was raised to Fls.100m. from Fls.85m. the year before. The provision for taxation was raised to Fls.129.6m. (Fls.112.8m.).

It was added that the bank's consolidated balance-sheet total amounted to Fls.50.4bn. at the end of 1976, representing an increase of 19.7 per cent. from the previous year's level. It rose by 11 per cent. in the first half of 1976.

Amro noted that the number of Ordinary shares outstanding increased by 4.6 per cent. and that net profits per share were up 14.1 per cent., compared with 18.1 per cent. in 1975.

The statement adds that the bank is proposing to raise the 1976 dividend to Fls.4.50 per Ordinary share of Fls.20, representing an increase of Fls.0.30 on the year before. Taking into account the half-year's dividend distribution, the final dividend will amount to Fls.2.30 per share. Payment of the final dividend will be made wholly in cash or alternatively Fls.1.30 in cash and nominally Fls.0.40—1 for 50—in Ordinary shares charged to the share premium reserve. The new shares will rank for dividend for 1977 and subsequent financial years.

Amro's annual report will be published on March 5 and the bank is reserving comments on last year's business performance and the outlook until then.

AIR FRANCE

Struggling to recover

BY ROBERT MAUTHNER IN PARIS

AIR FRANCE, the French state-owned airline, is flying high but only in the literal sense. Though the services it offers its clients have a high reputation, it is still struggling to pull out of the financial difficulties which, in common with other world airlines, hit the French company as the result of the world energy crisis in 1973.

What it has gained in the subsonic field with its fleet of Boeing 747s and 727s, Airbuses and Boeing 707s—the latter, due to be phased out by the end of this year—it has lost with the coming into service of Concorde and the continued operation of its obsolete 28 Caravelles.

Concorde is an aircraft which Air France would probably never have bought if it had had the choice, but of which—*faute de mieux*—it is now immensely proud. Yet it has proved to be a crushing financial burden which accounted for as much as half the company's overall deficit last year.

Losses

In an interview with the Financial Times, M. Pierre Giraudet, the Air France chairman, revealed that the company's losses last year totalled some Frs.420m. (about £50m.), roughly the same as those of 1975 before Concorde went into regular service. Though the subsonic shortfall was halved, the improvement was wiped out completely by Concorde's losses of Frs.220m.

Even if the supersonic aircraft is authorised to land in New York, the company will still have this particular financial albatross hanging around its neck. For Air France has calculated that each of its Concordes will have to fly 2,750 hours a year with a 65 per cent. payload for the supersonic services to become profitable, whereas a twice-daily service from Paris to New York would merely push the number of flying hours up to 1,550 each in 1977 from 1,190 last year.

This, however, is only part of the picture. The postponement, enforced by the Government, of urgent decisions on the replacement of Air France's fleet of ageing Caravelles and the obligation, also imposed by the authorities, to use two Paris airports when one would have ensured a much more efficient operation, have saddled the company with additional financial burdens.

The main reason for the Government's tardiness is that it is still awaiting the outcome of complicated negotiations between the French aircraft industry and McDonnell Douglas of the U.S. for the joint construction of a new medium-range airliner, the Dassault-Breguet Mercure 200.

Though this 180-seat aircraft would not meet Air France's needs for a 100-seat replacement of the Caravelle, McDonnell Douglas might demand an undertaking from the French to buy the DC-9 in return for its participation in the Mercure project. The negotiations have run into serious difficulties and it is unclear whether they still stand a chance of success.

The only light that has been thrown on the proceedings is the recent statement by M. Marcel Cavaille, Minister of Transport, that a Government decision on replacements for Air France's Caravelles is likely to be taken within about three months. But, in the meantime, the company continues to lose money on what were once the pride of its fleet.

Air France is paying some Frs.3.5m. more per year for each Caravelle, which has a very high fuel consumption and only 85 seats, than it would for a more modern 110-seat aircraft like the Boeing 737 or DC-9, in spite of the fact that the Caravelles have now been completely written off, according to M. Giraudet.

This means that the company would be saving nearly Frs.100m. a year if it had been allowed to replace its obsolete aircraft two years ago, when the Board of Air France was threatened with dismissal by the then Finance Minister, M. Fourcade, if it persisted with its decision to buy Boeing 737s.

Replacement

With the passing of time, the problem of a replacement for the Caravelle has become increasingly acute. Air France, as M. Giraudet pointed out, will come on to the medium-haul market about six years after its main competitors who, by 1984 or 1985, will already be thinking in terms of replacing their Boeing 737s and DC-9s. A provisional solution will therefore have to be found if the French airline does not want to find itself again in an inferior position in the medium-range field in ten years' time.

If the obligation to fly obsolete aircraft, at least on some medium-range routes, has sapped the company's financial resources, the opening of the port has made at least as big a hole in its purse.

The extra cost of dividing the company's operations between the new airport and Orly, is estimated at Frs.180m., including the loss of medium-haul traffic to competing airlines still based at Orly. Indeed, if Air France had had its choice, it would have continued to group all its services at Orly until a proper terminal of its own had been built at Charles de Gaulle, which will not be completed before 1981.

Though this is never stated in so many words, Air France clearly feels that it has been badly treated by the Government. The state, it is true, pumped Frs.427m. into the company last year in the form of a capital increase, but this did nothing to improve its operating results. What Air France is seeking in a new contract currently under negotiation and due to be concluded, if all goes well, in April or May, is that the state should pay directly for services which it obliges the company to provide in spite of the fact that they are considered to be uneconomic by its directors.

Air France, it is claimed, could have broken even last year if it had been allowed to pursue its own policies. The responsibility for its losses should, therefore, be clearly indicated in the accounts.

This would make the balance sheet look better. But it would do nothing to solve the basic problem of an airline which is not alone in having to pay the price of representing a country intent on maintaining a viable national aircraft industry in the face of overwhelming American competition.

CA rejects statement by London banks

By Max Wilkinson

CREDITANSTALT - Bankverein, the Austrian bank which is being sued by a consortium of London banks for non-payment of $20.5m. (£12m.) of letters of credit, claims that a statement circulated by the consortium to 1,000 world banks last week "in its presentation both incomplete and misleading."

In an official announcement Creditanstalt says the statement "conveys the impression" that CA's action was unprecedented and has undermined the basis of international documentary credits. In fact, CA is relying upon the right to withhold payment under letters of credit where fraud affecting the issue.

The dispute between the banks revolves around three letters of credit totalling $20.5m. issued by Creditanstalt in favour of Dutch company A. M. Aronson. This was to finance the sale by Aronson in 1973 and 1974 of pharmaceuticals to two Austrian companies, Allgemeine Finanz und Waren Treuhand (AWT), a subsidiary of Creditanstalt, and Austrowaren Oesterreichische Warenhandelsgesellschaft.

The London consortium, headed by Singer and Friedlander, claims the assignment to it of the letters and benefits in the letters because it provided the finance to Aronson. They were not paid by CA when presented the letters for payment because of alleged problems in the underlying action.

Creditanstalt claim that the credits opened by them were expressly stated to be non-transferable and consequently Singer and Friedlander could not acquire such rights as Aronson itself had under them. CA claim that, because of Aronson's alleged fraud, it had no rights under the letters. In addition, the letters of credit issued by CA were not negotiable instruments.

As an example of the "misleading manner" in which the consortium has presented its case, CA criticise the statement's proceedings brought by AWT against Aronson in the Vienna Commercial Court had been dismissed in a final judgment against which AWT has not appealed.

Abercom achieves margin improvement

BY RICHARD ROLFE JOHANNESBURG, Feb. 15.

THE ENGINEERING group Abercom, whose founder and chairman Mr. Murray McLean resigned abruptly last year, has reported pre-tax profits up from R5.3m. to R5.9m. for the six months ended December 31 which, with turnover up from R50.7m. to R54.5m., testifies to a slight improvement in profit margins. The tax charge, thanks to continued high capital expenditure, is actually down from R1.9m. to R1.8m. despite the higher pre-tax figure and the higher tax rates ruling since the last budget. The upshot is an improvement in earnings per share from 24 cents to 28 cents.

Abercom has declared an unchanged 10 cent interim, but has reneged on its forecast (made by the new management just after Mr. McLean's departure) of a 33 cent total dividend for the year to June 30, 1977.

It says that a reappraisal is needed in the light of a changed business climate, and now forecasts at least the same as last year's 29 cent. This puts the shares at 233 cents on a minimum yield of 12.4 per cent. The pro forma balance sheet shows net current assets of R21m. and a net asset value of 288 cents per share at end-December. The only problem is what happens if a profits crunch arises and capital expenditure has to stop or slow down, raising the tax rate at the same time.

● The conservatively-managed UNISEC GROUP, which is now the biggest investment company in the Republic, has concentrated in recent years on achieving a clean balance-sheet and avoiding showing any earnings which are not actually cash receipts.

Its consolidated net profit fell from R6.8m. to R6.4m. for the year to December 31, but earnings were a shade higher, from 12.5c to 12.7c. This reflected a reduction from 48.3m. to 42m. shares in issue at the year end (though the earnings figure is on a weighted average basis) which flowed from the cancellation of 5m. shares owned by Tokengate, now a Unisec subsidiary, and purchases in the market.

Taking end-year net asset value on 42m. shares, it works out at 151c against the share price of 90c. The group's investments have performed well over the year, with market value rising from R22m. to R25m., so comfortably beating the indices even allowing for R0.8m. of net new investment. The dividend has been raised 0.25c to 10.25c, putting the shares on a yield of 11.4 per cent. and at a discount of 40 per cent. to net asset value.

AMERICAN NEWS

Bethlehem Steel sees poor quarter

NEW YORK, Feb. 15.

BETHLEHEM STEEL Corp. expects that due to several factors "first quarter results will be disappointing," Mr. Lewis W. Foy, the chairman told analysts, reports AP-DJ.

Mr. Foy declined to project first quarter earnings.

A year ago the nation's No. 2 steelmaker had first quarter net profit of $28.4m. or 65 cents a share on sales of $1.28bn.

Mr. Foy said that "demand from the construction industry has not yet materialised and an unusual product mix continues." Bethlehem is a major supplier of structural steel and steel for use in the capital goods industries.

"The weather situation has not been helping things," Foy said. He said severe cold, heavy snows and nautral gas shortages "have hampered our operations especially at the Lackawanna plant near Buffalo. Those conditions have also created problems for many of our suppliers and customers," Foy said.

Canadian Javelin accusation

THE U.S. Securities and Exchange Commission, in an amendment to an existing suit filed last November, late last night accused Canadian Javelin of not being able to provide a full and proper accounting for about $7.2m. spent on certain projects in Central America during 1973 and 1974, reports Jay Palmer in New York.

Canadian Javelin, which has been the subject of numerous investigations by both U.S. and Canadian securities agencies over the past five years, is a Montreal-based explorer and developer of natural resources. Its shares are quoted in Canada and on the American Stock Exchange in New York.

The latest SEC charges, which were belatedly sealed by a Washington court after having already been made public, accused the company of raising $6.5m. through the sale of debentures in 1973 ostensibly to pay for the construction of a 24-mile highway in Panama. However, this cash and additional funds were later diverted to other uses, the SEC alleges.

The U.S. agency claims that more than $1.8m. of the $6.5m. were diverted in 1974 to Pavonia, a local Canadian Javelin subsidiary. Pavonia was actually only paid, the complaint says, $800,000, which was used to purchase property in Honduras and El Salvador nominally priced at $870,000. This property "had been earlier" offered for sale to Canadian Javelin at $25,000, the SEC said.

Unity Bank to merge

PROVINCIAL BANK of Canada and Unity Bank of Canada announced last night they agreed in principle to merge, reports AP-DJ from Montreal.

In a joint statement they said the new bank will retain Provincial's present name and president, Michel Belanger.

Chemical abandons broking service

CHEMICAL Bank, one of the larger New York city commercial banks, has abandoned its highly controversial stock broking service to selected customers.

EUROBONDS

Norpipe returns for $50m.

BY TONY HAWKINS

NORPIPE is to raise $50m. in the Eurobond market with a 12-year issue (average life 9.6 years), on an indicated 8½ per cent. coupon. The joint lead managers are Credit Suisse White Weld, First Boston (Europe) and N. M. Rothschild and Sons, who is running the books. Norpipe borrowed $50m. in this market last year with a 10-year issue at 9¼ per cent. that was issued at 99½. This issue is currently standing at 103¾-104 to yield 8.6 per cent. to maturity so that the new offering is well in line with current secondary market conditions.

A new floating rate note issue—this time for the French Banque Louis Dreyfus—is expected to be announced this week. Terms have not yet been finalised by an amount of $20m. on a 6½ per cent. coupon with a ¾ per cent. spread over Libor (London Interbank Offered Rate) is expected.

The floater which would have a 6-year maturity is being lead managed by Credit Commercial de France.

The Province of Newfoundland 9 per cent. 12-year bond issue (average life of 9.81 years) was more than three times subscribed and increased in amount from the $40m. originally announced to $50m. and priced at a premium at 100½. In first-time trading, the new issue opened at around 99½/100 but moved better during the day to close at 100/100½. Also traded for the first time yesterday were the Hitachi Zosen 7-year notes on a 7¾ per cent. coupon, priced at 99½. They were quoted yesterday at a middle price of 96½.

The $25m. Korean Development Bank 5-year 9½ per cent. issue has been priced at 99½ to yield 9.63 per cent.

The City of Oslo's Lux.Frs.500m., 8½ per cent. 10-year bond issue was priced at 99½ yesterday. The lead manager, Kredietbank Luxembourgeoise said that the average life for this issue was 6½ years.

Quiet conditions prevailed in the secondary market and there were no market features. Where changed, straight bonds tended about ¼ better but trading was at a very low ebb.

BONDTRADE INDEX

	Tuesday	Monday
Medium	102.42	102.42
Long	94.84	94.81
Convertible	107.85	107.72

Same again at Allianz

By Nicholas Colchester

BONN, Feb. 15.

ALLIANZ Versicherungs AG, the largest West German insurance company will pay an unchanged dividend of 20 per cent. for 1976, according to the chairman, Dr. Wolfgang Schieren.

Giving a preliminary statement of the company's performance last year, Dr. Schieren sketched a picture of opposing trends. There were large losses in the car insurance, the biggest single sector of the company's insurance business, and insurance operations produced a technical loss for the year.

"Thanks to reserves established against variations of claims, however, the overall result for the year would be a 'brilliant profit,'" the chairman predicted.

SELECTED EURODOLLAR BOND PRICES MID-DAY INDICATIONS

	Bid	Offer
STRAIGHTS		
Alcan 9½pc 1989	104½	105
Australia 8¾pc 1991	101	101½
Bowater 9½pc 1986	102	102½
Canadian N. Rlwy. 8¾pc '86	100½	101¼
Credit National 8¾pc 1986	98¼	99
Denmark 8¾pc 1984	100	100½
ECS 9¾pc 1986	102½	103¼
EIB 9¼pc 1988	100½	101¼
Erap 9½pc 1985	103	103½
Esso 8pc 1986 Nov.	102¾	103¼
Eurofima 8½pc 1983	102¼	103¼
Granges 9½pc 1983	101½	102
Hamersley 9½pc 1992	100¾	101½
ICI 8¾pc 1987	97	97½
ISE Canada 9¾pc 1986	103½	104
Macmillan Bloedel 9pc 1992	98	98½
Massey Ferguson 9½pc 1991	103½	104
Michelin 9¾pc 1988	101¾	102¼
Midland Int. Fin. 8¾pc 1986	99½	100½
Modo 9pc 1986	98½	99¼
Natl. Westminster 9pc 1986	101½	102½
Newfoundland 9½pc 1995	100	101
Newfoundland 9pc 1989	99½	100¼
Norges Komm. Bk. 8¾pc '91	98¼	98¾
Norpipe 9¼pc 1988	102½	103½
Norsk Hydro 9pc 1991	102¼	103
Norsk Hydro 8¾pc 1992	99	99½
Oslo 9pc 1988	101¾	102¼
Ports Autonomes 9pc 1991	99½	100
Prov. Quebec 9pc 1994	100	100½
Quebec Hydro 8¾pc 1986	98½	99
Prov. Saskatchwn. 8¾pc '86	102	102¾
Skand. Enskilda 9pc 1991	100¾	101¼
SKF 8pc 1987	99¼	100
Volvo 9½pc 1985	102¾	103¼
NOTES		
Australia 8¼pc 1983	102	102½
Australia 8¾pc 1986	101¾	102¼
Dow Chemical 8pc 1986	101½	102¼
ECS 7¾pc 1982	97½	98
EEC 8¾pc 1982	100¾	101¼
Enso Gutzeit 8¾pc 1984	98	98½
Gotaverken 8pc 1982	101	101½
Kockums 8pc 1983	99¾	100¼
Michelin 8¾pc 1983	101½	102½
Montreal Urban 8¾pc 1981	100	100½
Natl. Coal Board 8¾pc 1981	101	101½
Nw. Brnswck. Prv. 8¾pc '83	102½	103½
New Zealand 8¾pc 1986	100	100½
Nippon Fudosan 8pc 1981	100½	101¼
Sth. Scotland Elec. 8¾pc '81	99½	100
Swedish State Co. 7¾pc 1982	99½	100½
Venezuela 8pc 1984	97½	98¼
FLOATING RATE NOTES		
BCO Brasil 6¾pc min. 1982	97½	98½
BNP 5¾pc min. 1987	98½	98¾
BNP 7pc min. 1983	100¾	101½
IBJ 6pc min. 1982	99	99½
Lloyds 7¼pc min. 1983	100½	101¼
LTCB Japan 6¾pc min '81	99½	100½
Midland 7¼pc min. 1982	101½	102
Wms. Glyns 6¾pc min. 1984	100½	100¾
D-MARK BONDS		
Austria 7pc 1987	99½	100½
Beecham 8pc 1983	102	102½
Bergen 7½pc 1989	98½	99
BFCE 7pc 1987	98	98½
EIB 6¾pc 1984	98½	99½
ICI 7¾pc 1986	100	100½
New Zealand 7¾pc 1986	103½	104
Norway 6¾pc 1982	100	100½
Shell 6¾pc 1989	98¼	99¼
World Bank 7pc 1987	97½	98½
Source: White Weld Securities.		
CONVERTIBLES		
American Express 4¼pc '87	92	94
Ashland 5pc 1988	[illegible]	[illegible]
Beatrice Foods 4½pc 1992	[illegible]	[illegible]
Beatrice Foods 4½pc 1992	[illegible]	[illegible]
Borden 5pc 1992	[illegible]	[illegible]
Broadway Hale 4½pc 1987	[illegible]	[illegible]
Canon Camera 7pc 1990	[illegible]	[illegible]
Carnation 4pc 1987	[illegible]	[illegible]
Chevron 5pc 1988	[illegible]	[illegible]
Dart 4½pc 1987	[illegible]	[illegible]
Eastman Kodak 4½pc 1988	[illegible]	[illegible]
Economic Labs. 4½pc 1987	[illegible]	[illegible]
Fed. Dept. Stores 4½pc '85	[illegible]	[illegible]
Firestone 5pc 1988	[illegible]	[illegible]
Ford 5pc 1988	[illegible]	[illegible]
Ford 6pc 1986	[illegible]	[illegible]
General Electric 4¼pc 1987	[illegible]	[illegible]
Gillette 4¾pc 1987	[illegible]	[illegible]
Gould 5pc 1987	[illegible]	[illegible]
Gulf and Western 5pc 1988	[illegible]	[illegible]
Harris 5pc 1992	[illegible]	[illegible]
Honeywell 6pc 1986	[illegible]	[illegible]
ITT 4½pc 1987	[illegible]	[illegible]
Komatsu 7½pc 1990	[illegible]	[illegible]
J. Ray McDermott 4¾pc '87	[illegible]	[illegible]
Mitsubishi Elec. 7pc 1991	[illegible]	[illegible]
Mitsui 7½pc 1990	[illegible]	[illegible]
J. P. Morgan 4¾pc 1987	[illegible]	[illegible]
Nabisco 5½pc 1988	[illegible]	[illegible]
Owens Illinois 4½pc 1987	[illegible]	[illegible]
J. C. Penney 4½pc 1987	[illegible]	[illegible]
Pioneer 6pc 1989	[illegible]	[illegible]
Raymond 8pc 1989	[illegible]	[illegible]
Revlon 4½pc 1987	[illegible]	[illegible]
Reynolds Metals 5pc 1988	[illegible]	[illegible]
Sperry Rand 4¾pc 1987	[illegible]	[illegible]
Squibb 4¾pc 1987	81½	83½
Texaco 4¾pc 1988	80¼	82¼
Toshiba 6¾pc 1990	106¼	107½
Union Carbide 4½pc 1982	105	107
Warner Lambert 4¾pc 1987	84	86
Warner Lambert 4¾pc 1988	79	81
Xerox 5pc 1988	80½	82½
Source: Kidder, Peabody Securities.		

AARONSON BROS. LIMITED

Manufacturers of Contiboard, Contiplas, Wood Veneers, Aroplas, Laconite, Armaflex, Spanboard, etc.

STATEMENT OF TRADING RESULTS

Year ended 30th September, 1976 (Subject to Final Audit)

	1976 £'000	1975 £'000
Group Sales	21,570	17,766
Exports	4,594	3,446
Profit before Taxation	2,359	1,820
Profit after Taxation and Minorities	2,221	993
Extraordinary Items (Net of Tax)	577	229
Earnings per Share (fully diluted)	10.40p	7.72p

In previous years full provision has been made for the contingent liability of deferred taxation. It has been decided that the amount already provided at 1st October, 1975 is adequate for any liabilities that are likely to arise in the foreseeable future and therefore no further provision is necessary.

The earnings per share figure for 1975 has been adjusted to take account of the change in policy in dealing with deferred taxation.

The extraordinary items arise substantially from the closure and relocation of production units.

The Directors propose recommending the maximum permitted payment for the final dividend of 1.21519p per Ordinary Share making, with the interim dividend already paid, a total of 1.76519p per Ordinary Share (last year 1.60472p per share) absorbing £342,847 (last year £311,679).

Subject to confirmation of the dividend at the Annual General Meeting to be held on Wednesday, 30th March, 1977, dividend warrants will be posted 1st April for payment on 4th April, 1977 to all shareholders on the register at the close of business on 2nd March, 1977.

Now that the largest programme of expansion ever undertaken by the Group has been completed at a cost in excess of £5,000,000 over the past two years, the benefits of the cost savings and increase in productivity predicted in the last Annual Report are being realised.

The first few months of the current year already show a substantial increase in profits over the same period last year. The Group should continue along its solid path of growth and report a further material increase in profits for the current year, subject to any unforeseen circumstances. Meanwhile further capital expenditure projects are still being examined and undertaken.

TL FINANCIAL AND COMPANY NEWS

table capital market redicted for W. Germany

AULINE CLARK

GERMAN bankers are ig a "smooth and ten-ree" domestic capital in 1977, with interest tely to stabilise at least summer and with bonds a healthy turnover and naturities.

eutsche Landesbank Giro-, more or less echoing a iew of this year's outlook market made earlier this by Mr. Wolfgang Roeller dner Bank, has also dis- fears that a dangerous lation of private and sector demands on the might be experienced this The moderate economic y and ample liquidity in porate sector it points out, contradict forecasts of d.

eutsche Bank in its latest ly Economic Report also "reawakened confidence" future interest rate trend a diminished risk of fluc-s in bond prices, as d in a shift in the interest ructure.

eas at the end of 1975, it points out, the difference in yield between one and 10 years securities was some 3.3 percentage points, one year later it had dropped by 30 per cent. to 2.3 percentage points. From this, the conclusion is drawn that the price/risk premium expected by investors in return for commitment over the long-term has noticeably declined.

The move towards longer term maturities was marked in November last year by the Federal Government's well received launching of a 10 year issue. The bank suggests that the decisive factor was probably to be seen in a change of long-term inflationary expectations which could now also be observed among the broader investing public.

The recent success in stabilising prices has proved "that the inflation rate not only goes up" and that "a higher price level from cycle to cycle does not have the character of an inescapable fate," the bank says.

The bank adds moreover that private and professional investors in particular have had increasing recourse to the bond market. From September to November, 70 per cent. of the DM6.3bn. bonds sold were accounted for by domestic non-bank purchasers. This compares with only 17 per cent. for the same period in the previous year.

On expectations that the inflation rate will continue to taper off in the current year with the projected yearly average 0.5 percentage points below last year at 4 per cent., the bank points out that the broader real interest rate margin is likely to have a positive effect on the bond market. In addition, the lower inflation rate reduces the need for monetary curbs on the economy and thus the Bundesbank is not expected to push up interest rates.

The bank does add a warning on the possibilities of interest fluctuations, however. A stronger D-mark could have another downward influence while a new debate on the State's financing problems could do the opposite.

Esselte forecasts growth in 1976-77

STOCKHOLM, Feb. 15.

ESSELTE, the Swedish office equipment, packaging and printing concern, forecasts in the nine-month interim report that group sales for the whole of the year 1976/77 will be Kr.2.1bn. compared with Kr.1.5bn. in the preceding year. New companies acquired some two years ago have contributed about Kr.450m. of the increase.

Earnings are expected to be about Kr.27 per share compared with Kr.20 per share in the previous year. The pre-tax profit is estimated to increase to Kr.109m. compared with Kr.89m. for the nine-month period. The group result went up by 43 per cent. to Kr.1.5bn. compared with Kr.1.1bn. a year earlier.

Stelux buys up Colex shares

STELUX Manufacturing is to buy the remaining 50 per cent. of the issued share capital of Colex not yet held by the company, reports Daniel Nelson from Hong Kong. The purchase will cost HK$7.56m. in the form of 1,512,000 new Stelux shares.

The first 50 per cent. was bought in August 1975 for HK$4.6m. in cash in order to break into the consumer electronics field. The deal typifies the major realignments being made by Hong Kong watch-making and electronics companies—the colony is now behind only the U.S. and Japan as a manufacturer and supplier of electronic quartz watches.

Mohan petitions

COURT PETITIONS are due to be heard on March 18 for the winding up of three Mohan property and investment group companies and a finance firm, reports our Hong Kong correspondent.

Hutchison International owns 27.98 per cent. of Mohan, which is the petitioner, along with two of its wholly-owned subsidiaries. The link between Hutchison and the Mohan group goes back to 1973 when it required 15.9 per cent. of the property company soon after the latter went public.

Oman changes investment rules

BARBARA CASASSUS

MUSCAT, Feb. 15.

OMANI Government has nced a massive increase 25,000 Omani rials to Omani rials in the num paid up capital re-for new local companies ished with foreign partici-

main reason behind the is to encourage an inflow ital for larger-scale projects have been set up in the nd to keep ownership of r enterprises in the hands ani nationals.

rding to Commerce and ry Minister, Mohammad much of the capital in companies with interests has until now been generated inside the Sultanate, while Omanis have been silent partners and have not contributed fully to the country's economic development.

The stake to be held by Omanis remains at a minimum of 35 per cent., although the exact proportion will be determined in each individual case by the Foreign Investment Committee, which has just been formed under the chairmanship of the Under Secretary of the Ministry of Commerce and Industry. It will also insist that overseas participants provide certificates verifying that their share of the capital has been raised abroad.

Under the latest amendment to the commercial law, the Government has introduced a fine of at least 5,000 Omani rials for foreigners and 1,000 Omani rials for Omanis who start businesses before permission is granted by the Committee.

The new measure has been given a mixed reception by the Sultanate's commercial community. While some sources feel the increase in the paid up capital will help to ensure greater economic stability, others fear it will deter overseas investors and will prevent Omanis with limited resources from setting up small businesses, for which there is considerable scope.

Technical aid for Grand-Bazar

ZURICH, Feb. 15.

DS MAGASINS JELMOLI willing to continue technical aid to SA Grand-Bazar if ary after a Liège court ed the Belgian company yesterday, Jelmoli ing director Josef Zumold Reuter.

oli has a 25 per cent. stake in Grand-Bazar which it was willing to sell to the French Agache-Willot group before talks ran into difficulties last month.

Zumstein said talks continue with two groups, one Belgian, who may be interested in acquiring the Liège store which has been allowed to remain open for a further 14 days.

Zumstein said by technical aid he means for example assisting the store and any future owners with buying stock through Jelmoli's own facilities.

He said he does not mean aid in the sense of financial assistance.

UTH AFRICAN GOLD MINES

Plenty of investment

BY RICHARD ROLFE IN JOHANNESBURG

ITE the shock of last year's price collapse to $103, the African cold mining try is preparing to spend sums on capital account the next five years. This be taken as a sure sign the seven mining houses, control the 40 major gold s, are confident that gold mbarked on at least a slowly price trend.

art from the well-advanced mines—Unisel, Elandsrand, raal, Randfontein's Cooke n and the dump retreat-schemes—there are a num-of complementary plans to d tonnage at existing s, particularly in the Orange State.

nding

Dennis Etheredge, chair-of the Anglo American gold on, said recently that his on would be spending n. over the period up to Taking into account the of the other houses, the try's combined spending amme in the next five years exceeds R1.5bn. (£1bn.).

aking down the Anglo ican requirement, the lsrand mine, now due to production a year ahead of the earlier schedule in early 1980, raised R60m. in 1975 and is currently seeking another R80m. by way of a rights issue of 125-for-100 at 220c. But forecast expenditure is R149.6m. in 1975 money terms, and the latest prospectus, observing that "the actual inflation experienced up to the end of 1979 will determine the extent to which the cost of the project will be in excess of the above estimate" makes it clear further funds will be required.

Over and above Elandsrand, Anglo plans to spend about R100m. on East Rand Gold and Uranium (ERGO), a dump re-treatment project, and has almost completed expenditure of about R85m. on the similar joint metallurgical complex in the Free State.

Expansion at Free State Saaiplaas should cost another R80m. and there is a further major programme at Vaal Reefs, now the industry's biggest gold producer, which is building a new uranium plant and plans to sink a new shaft on its South Lease Area. Mines like Free State Geduld, Western Deep Levels and President Steyn all have large, continuing programmes.

In the past, gold mine capital expenditure tended to be a one-off job. The controlling house raised funds, sank shafts, equipped mills and reduction works and, when output began, shareholders enjoyed the benefits of some years of gold production, according to grade and reserves. But to-day, a gold mine tends to be a continually capital-hungry corporation, and thus more like an industrial company.

Rising financing needs have coincided with increased difficulty in finding capital overseas. The one exception to this rule has been the large sums provided for future uranium deliveries and the five or six such schemes arranged to date have probably been funded as to about R200m. overseas. Otherwise the main brunt of financing the gold mines' expansion has fallen on the mines themselves or on the mining houses.

With the establised mines, the problem of finance is simplified. Free State Geduld, for example, has a R100m.-plus programme to sink a new shaft and expand its tonnage. The master plan is to use its remaining years as a rich mine—it has the fourth highest grade in the industry—to finance its metamorphosis into a low grade, high tonnage mine, on which basis it would have, subject to gold price and cost levels, many years of additional life.

The key concept is that the falling grade will be offset by rising tonnage, mitigating the effects on revenue, though profitability will tend to be much less.

This kind of programme, which is quite common in the industry at present, can usually be financed out of the individual mine's cash flow. All capital expenditure is deductible before tax. In the case of the mines with the highest tax and mining lease formula (and Free State Geduld and a few others pay a marginal rate of 74 per cent.) this means the State is effectively funding the bulk of the spending programme.

New scale

One problem, however, is that shareholders tend to be squeezed when mines undertake big capital programmes. Harmony, for example, passed its dividend last year in order to conserve funds for its R60m. programme, scheduled for completion in June 1978.

For the mining houses themselves, the new scale of expenditure at existing mines also means less spare funds for funding needs elsewhere. In the past, for instance, the fabulously rich Free State Mines have generated big surpluses which have been placed with Anglo American and onlent to other members of the group. But in the future this source of funds will increasingly be pre-empted by the mines themselves and the resulting financing "gap" is no doubt one of the factors behind the Anglo-American-Rand Selection full merger.

Most intractable are the arrangements for the new developing mines. The gold mining industry in South Africa has been built up by equity finance, with loan capital playing a negligible part, mainly because of the high risk nature of deep level mining. As a rule the controlling house and the vendors of the mineral rights take up a proportion of the shares at a low price and then acquire further shares at the issue price in the initial prospectus, which are either held or laid off to other shareholders.

Over the years, shareholders in companies like Anglo American Gold Investments or Gold Fields of South Africa have been offered participation in a number of new mines by this means and the offer has been profitable or not according to market circumstances.

Inflation

But this venerable system, which dates back to early days on the Rand, is no longer working. One problem is the long lead time on a new gold mine—probably five to six years from the first share issue to the first dividend—and the big escalation of capital sums required. This has led in some cases to massive inflation of issued share capitals as the mining houses have pressed ahead with rights issues in unfavourable circumstances. East Driefontein's 54.5m. shares in issue have just been overtaken by Deelkraal, with 63m. and Elandsrand's current plans will take it up to 50m.

This may seem academic, but it is no accident that Randfontein, one of the most popular gold-uranium stocks, has only 5.4m. shares in issue. The investing public tends to feel that the capital of a juggernaut with 63m. shares has been excessively diluted.

This aside, the foreign investors—from the U.S., U.K., France, Belgium, Switzerland—who have been the mainstay of gold mine finance in the past have become increasingly wary even of investments with high current yields. They are even less interested in gold shares with no paybacks for another four years. The U.S. investor too, is precluded by SEC rules from following rights issues.

All this means that the mining houses are being forced to find new gold mines almost entirely out of their own resources, with little public participation. Even to the houses, the cost of tieing up large sums of equity capital for six to seven years is beginning to look rather daunting, and conditions will probably need to improve before new deep level mines are embarked on.

WALL STREET + OVERSEAS MARKETS + FOREIGN EXCHANGES

Fresh early rise on bargain hunting

BY OUR WALL STREET CORRESPONDENT

NEW YORK, Feb. 15.

Stocks on Wall Street recovered further ground in to-day's early trading, buoyed mostly by bargain hunting in a number of recently depressed "glamours" and "blue chips."

The Dow Jones Industrial Average recorded a fresh gain of 5.07 at 943.40 at mid-day, while the NYSE All Common Index

Closing prices and market reports were not available for this edition.

showed an improvement of 14 cents at $54.94. Gains outnumbered declines by a seven-to-five margin, while trading volume expanded by 1.95m. to 9.51m. compared with noon yesterday.

MONDAY'S ACTIVE STOCKS

	Stocks traded	Closing price	Change on day
Amer. Airlines	[illegible]	11¾	−⅛
Amer. Tel. Tel.	[illegible]	63⅞	−⅛
General Motors	[illegible]	70½	+¼
Royal Dutch	150,800	54⅞	—
Eastman Kodak	149,700	72½	−1¼
Brit. Petroleum	145,400	15⅜	−⅛
Gulf & Wstn. Wts.	144,500	½	−⅛
Dow Chemical	140,300	38⅞	—
Coastal States Gas	134,900	17⅜	−⅛
Kresge SS	134,300	35⅛	−⅜

The nation's motor industry reported a sharp rise in early-February car sales, and analysts said this, along with bargain hunting, helped the stock market point higher for the second day in succession.

General Dynamics gained $⅝ to $57⅜; the Defense Department said spending estimates for General Dynamics' F-16 fighter and Trident submarine over the next decade have been raised by $10bn.

Hewlett-Packard rose $1⅛ to $72⅛, while **Du Pont** picked up $1⅜ to $132⅛.

Mesa Petroleum added $¾ to $36 on improved earnings, but **Tesoro Petroleum** fell $1½ to $14⅜ on a first-quarter loss.

Commonwealth Oil weakend $1¼ to $5¼ on a heavier loss for the year.

THE AMERICAN SE Market Value Index registered a further improvement of 0.29 at 112.53 at noon, while turnover rose 30,000 to 1.09m. against yesterday's morning trade.

OTHER MARKETS

Canada improves

Oils, Metals and Industrials led a broad upturn in light early trading on Canadian Stock Markets yesterday.

Canadian International Power "A" added $¾ at $19⅞ after a two-day trading halt; it intends proposing an asset distribution scheme to shareholders.

Provincial Bank shed $⅜ to $12⅞, after a one-session halt, after news of its proposed merger with Unity Bank.

PARIS—Moderately lower over a broad front, investor reticence reflecting domestic political uncertainties, rumours of increased unemployment in January, and the stagnation of French industrial production in December which has continued into January.

Steels were especially dull on the renewed call for nationalisation by the French Communist Party.

Internationals fared better but Golds lost ground.

BRUSSELS—No decided trend after very slow trading.

Among easier Non-Ferrous Metals, **Vieille Montagne** lost Frs.90, but **Cockerill** gained Frs.8 in Steels. **Petrofina** edged Frs.10 higher in steady oils.

U.S. stocks rose, but South African Golds and German issues declined. **Peugeot** fell Frs.40 in otherwise narrowly mixed French stocks.

AMSTERDAM—Market picked up from initial casiness, but trading was dull as operators held back due to uncertainty about strikes.

In Dutch Internationals, Unilever gained Fls.1.1

State Loans fell slightly. Moderate interest was shown for the 8.25 per cent. State Loan, which opened for subscription yesterday.

GERMANY—Mostly firmer on Wall Street's overnight improvement.

Siemens gained DM1.20 and **AEG** DM1.40 in heavy trading. **Mannesmann** and **Commerzbank** each gained DM1.40.

Among Motors, **BMW** regained DM2.5. **VW** rose DM1.20 to DM140.50: brokers said there is continued talk that it may decide to pay a modest dividend for 1976.

Allianz Versicherung fell DM9 to DM396 on announcing that its 1976 net profit was not as high as in 1975.

Public Authority Loans rose up to DM0.25 in calm trading, and the Regulating Authorities sold DM26.1m. nominal of stock (18m.). Mark Foreign Loans were maintained.

MILAN—Stocks were generally firmer in fairly active dealings, as technical demand, linked to the forthcoming settlements, prevailed throughout.

Snia Viscosa rose L47 to L1,112 and **Fiat** L34 to L1,819.

Bonds were quiet.

COPENHAGEN—Firmer for choice in very active dealings, although Banks eased. Gains were concentrated in Commodities and Industrials.

SPAIN—The market had its biggest single daily gain for at least a year. There was heavy buying in all sectors, especially Banks. Good gains outside the Banks included **CEPSA**, 14.50 up at 305, and **Explosives Rio-Tinto**, 9 higher at 185.

ZURICH—Market was narrowly mixed but with a firmer bias in continued quiet trade.

Bally Bearer, **Holderbank** and **Motor Columbus** improved in Financials, and **Zurich Bearer** gained Frs.75 in Insurances, while **Nestle Bearer** added Frs.15 in Industrials.

JOHANNESBURG—Gold shares eased in line with the London fixing, in very thin trade.

Financial Minings, Tins, and Collieries hardened, but Coppers were occasionally lower.

HONG KONG—Market recovered from a weak opening to close little changed with a firm undertone.

Operators' attention is now directed towards to-day's expected results from Hang Seng Bank, unchanged at $HK124.000, and next week's results from Hong Kong Bank, unaltered at $HK20.50.

Jardine Matheson shed 10 cents to $HK17.80, but in firm Hotels, **Associated Hotels** rose 10 cents to $HK2.525.

TOKYO—Shares were inclined to recover moderately on cheap buying, helped by a reversal of the recent rise in the Yen and Wall Street's overnight rally. Volume 190m. shares (150m.).

Expectations that the outstanding balance of buying in margin trading, to be announced to-day, will show a decline also aided sentiment.

Some export-orientated issues recovered, **Toyota Motor** adding Y20 to Y1,210 and **Nissan Motor** Y6 to Y701.

Tokyo Electric Power rose Y22 to Y808, while Oil Refineries continued to rise, **Showa Oil** adding Y18 to Y365 and **Toa Nenryo** Y28 to Y585.

AUSTRALIA—Market eased from a firm start to close mixed.

However, Properties and some of the Financiers which have been weak of late held up until the close, with **Hooker** adding 3 cents to 56 cents and **Lend Lease** 4 cents to $A1.99.

BHP, up to $A6.92 on initial buying, later retreated to $A6.70, for a net loss of 10 cents.

AAR fell 15 cents to 72 cents on reports that the Japanese were no longer interested in the Hail Creek coal project, while its parent, **CRA**, lost 8 cents to $A2.78.

Renison declined 18 cents to $A8.80 and **Thiess** 12 cents to $A1.88. Among Oils, **Woodside Burmah** came back 3 cents to $A1.18 and **Santos** 8 cents to $A1.62.

Indices

NEW YORK – DOW JONES

	Feb. 14	Feb. 11	Feb. 10	Feb. 9	Feb. 8	Feb. 7	1976-77 High	1976-77 Low	Since compilation High	Since compilation Low
Industrial	938.33	931.52	937.92	935.84	942.24	946.31	1014.79 (21/9)	858.71 (2/1)	1051.70 (11/1/73)	41.22 (2/7/32)
HomeB'nds*	91.29	91.53	91.59	91.47	91.59	91.56	95.57 (6/1/77)	85.68 (13/7)	—	—
Transport	223.74	224.24	226.97	225.94	227.74	228.19	237.52 (3/1/77)	175.69 (2/1)	279.88 (7/2/69)	13.23 (8/7/32)
Utilities	105.69	106.08	107.17	107.94	109.53	109.47	111.67 (25/1/77)	84.8 (26/5)	163.32 (20/4/69)	10.58 (28/4/42)
Trading vol. 000's	19,230	20,610	22,540	25,840	24,040	20,700	—	—	—	—

* Basis of index changed from July 1.

Ind. div. yield %	Feb. 11	Feb. 4	Jan. 21	Year ago (approx.)
	4.45	4.55	4.27	—

STANDARDS AND POORS

	Feb. 14	Feb. 11	Feb. 10	Feb. 9	Feb. 8	Feb. 7	1976-77 High	1976-77 Low	Since compilation High	Since compilation Low
*Industrials	111.89	111.25	111.94	111.82	112.76	113.11	120.39 (21/9)	101.64 (2/1)	134.64 (11/1/73)	35.2 (30/6/32)
†Composite	100.74	100.22	100.52	100.73	101.50	101.99	107.85 (21/9)	90.90 (2/1)	125.95 (11/1/73)	4.40 (1/6/32)

	Feb. 9	Feb. 2	Jan. 26	Year ago (approx.)
Ind. div. yield %	3.99	3.89	3.87	3.35
Ind. P/E Ratio	10.85	11.09	11.07	13.88
Long Govt. Bond yield	7.64	6.87	6.15	5.79

N.Y.S.E. ALL COMMON

Feb. 14	Feb. 11	Feb. 10	Feb. 9	1976/77 High	1976/77 Low
54.80	54.57	54.89	54.88	57.88 (31/12)	37.06 (2/1/76)

Rises and Falls	Feb. 14
Issues Traded	1,865
Up	711
Down	713
Same	441
New Highs	33
New Lows	23

MONTREAL

	Feb. 14	Feb. 11	Feb. 10	Feb. 9	1976/77 High	1976/77 Low
Industrial	178.80	179.36	179.40	177.99	207.35 (19/5)	161.34 [illegible]
Combined	177.86	178.20	177.30	176.82	199.72 (20/5)	162.16 [illegible]
TORONTO Composite	998.9	998.9	989.7	998.5	1106.2 (13/5/76)	920.1 [illegible]
JOHANNESBURG Gold	159.5	156.4	157.7	152.4	226.7 (12/3)	115.3 [illegible]
JOHANNESBURG Industrials	179.6	178.9	180.3	180.0	210.0 (21/5)	175.6 [illegible]

	Feb. 15	Previous	1976-77 High	1976-77 Low
Australia (a)	420.48	422.26	522.65 (11/8)	404.24 (26/11)
Belgium (b)	96.39	96.51	114.12 (5/2)	97.15 (22/10)
Denmark (c)	102.06	102.64	117.70 (19/2)	96.48 (1/12)
France (e)	54.7	55.1	74.5 (5/5)	51.0 (1/12)
Germany (f)	729.4	726.2	821.7 (17/5)	687.7 (2/10)
Holland (g)	81.9	82.2	106.5 (5/2)	77.9 (15/10)
Hongkong (h)	436.56	436.16	465.35 (17/5)	354.65 (2/12)
Italy (k)	67.94	67.32	91.57 (25/2)	64.35 (10/11)
Japan (m)	376.23	375.44	384.14 (4/1/77)	326.20 (2/11)
Singapore (n)	254.39	254.72	266.16 (3/2)	236.55 (2/1)
Spain (p)	92.49	89.95	103.79 [illegible]	[illegible]
Sweden (q)	385.91	379.94	476.92 (15/6)	[illegible]
Switz'l'd (r)	281.9	280.9	298.6 (12/5)	[illegible]

Indices and base dates (all base values 100 except NYSE All Common—50, Standards and Poors—10 and Toronto 300-1,000, the last-named based on 1975. (a) Sydney All Ord. (b) Belgian SE 31/12/63. (d) Copenhagen SE 1/1/73. (e) Paris Bourse 1961. (f) Commerzbank December, 1953. (g) Amsterdam Industrial 1970. (h) Hang Seng Bank 31/7/64. (k) Milan 2/1/73. (m) Tokyo New SE 4/1/68. (n) Straits Times 1966. (p) Madrid SE 31/12/76. (q) Stockholm Industrials 1/1/58. (r) Swiss Bank Corp 31/12/58. (u) Unavailable. ‡ Excluding bonds. * 400 Industrials. † 400 Inds. 40 Utilities, 40 Finance and 20 Transport. (c) Closed.

OVERSEAS SHARE INFORMATION

Investment premium based on $2.60 per £1—100¼% (101½%)

NEW YORK

Stock	Feb. 14	Feb. 11
[illegible]	[illegible]	[illegible]

CANADA

Stock	Feb. 14	Feb. 11
[illegible]	[illegible]	[illegible]

† Bid. § Asked. ‡ Traded. ¶ New stock.

NOTES: Overseas prices shown below exclude $ premium. Belgian dividends are after withholding tax. [illegible]

GERMANY

Feb. 15	Price DM.	+ or −	Div. %	Yld. %
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

PARIS

Feb. 15	Price Frs.	+ or −	Div. Frs.	Yld. %
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

AMSTERDAM

Feb. 15	Price Fls.	+ or −	Div. %	Yld. %
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

COPENHAGEN

Feb. 15	Price Kroner	+ or −	Div. %	Yld. %
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

VIENNA

Feb. 15	Price %	+ or −	Div. %	Yld. %
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

MILAN

Feb. 15	Price Lire	+ or −	Div. Lire	Yld. %
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

BRUSSELS/LUXEMBOURG

Feb. 15	Price Frs.	+ or −	Div. Frs. Net	Yld. %
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

SWITZERLAND

Feb. 15	Price Frs.	+ or −	Div. %	Yld. %
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

AUSTRALIA

Feb. 15	Aust. $	+ or −
[illegible]	[illegible]	[illegible]

TOKYO

Feb. 15	Prices Yen	+ or −	Div. %	Yld. %
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Source: Nikko Securities, Tokyo

STOCKHOLM

Feb. 15	Price Kroner	+ or −	Div. Kr.	Yld. %
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Pound improves

Sterling gained ground fairly steadily in the foreign exchange market yesterday as a sharp squeeze was applied by the authorities to short-term Euro-sterling interest rates. Very short term interest rates touched 60 per cent. in places and this was reflected in a corresponding widening of discounts on forward sterling. The pound's discount against the dollar for three-month delivery increased to 4.40 cents from 3.98 cents on Monday.

Conditions were generally calmer yesterday with currencies tending to move in the opposite direction from the previous day. The dollar was also much firmer against most other major currencies, while the earlier advance by the German mark and Japanese yen was reversed.

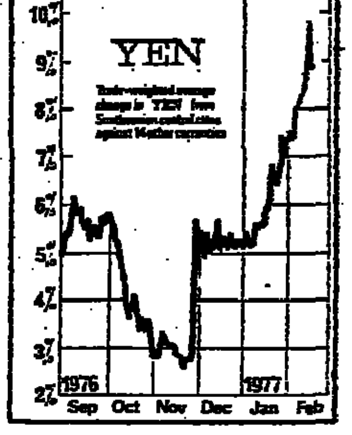
The pound opened at $1.6950-1.6960 and may have received some support from the authorities at the lower levels. It improved to $1.70 by mid-day, and touched a best level of $1.7045-1.7055 in the late afternoon, before closing at $1.7040-1.7050, a gain of 75 points on the day.

Sterling's trade-weighted average depreciation since the Washington Currency Agreement, as calculated by the Bank of England, narrowed to 43.4 per cent. from 43.6 per cent., after standing at 43.6 per cent. at noon and 43.8 per cent. in early dealings.

The dollar's depreciation since the Washington Agreement, as calculated by Morgan Guaranty of New York on noon rates, narrowed to 1.13 per cent. from 1.36 per cent.

The Japanese yen declined to Y283¾ in in terms of the dollar from Y281.57½ previously, and the German mark weakened to DM2.4042½ from DM2.3923.

Gold fell $½ to $135½-136½ in very quiet trading. The Krugerrand's premium over its gold content narrowed to 2.85 per cent. from 3.02 per cent. for domestic and international delivery.



SPECIAL DRAWING RIGHTS RATES

One SDR is equal to	Feb. 14	Feb. 11
Sterling	0.675455	0.67489
U.S. dollar	1.15753	1.15548
Belgian franc	42.5215	42.6634
Deutschemark	2.77029	2.77881
French franc	5.75401	5.74678
Italian lira	1021.11	1019.36
Japanese yen	327.588	—
Dutch guilder	2.89554	2.90661
Swedish krone	4.51080	4.52177
Swiss franc	2.89750	2.90557

Values are for currencies against the SDR as calculated by the International Monetary Fund in Washington.

EXCHANGE CROSS-RATES

Feb. 15	Frankfurt	New York	Paris	Brussels	London	Amsterdam	Zurich
Fr'nkfurt	—	2.3982-92	48.10-85	6.517-532	4.085-095	[illegible]	[illegible]
N. York*	41.78-80	—	20.09-11	2.7250-75	1.6950-6960	[illegible]	[illegible]
Paris	207.42-82	4.9695-9795	—	13.544-569	2.4425-4675	[illegible]	[illegible]
Brussels	15.30-32	36.70-73	7.37-39	—	62.36-42	[illegible]	[illegible]
London	4.09-10	1.704-705	8.47½-48½	62.60-75	—	[illegible]	[illegible]
Am'rd'm	104.33-38	2.4992-5017	50.255-305	6.8085-2135	4.2465-2515	[illegible]	[illegible]
Zurich	104.66-75	2.5122-32	50.50-54	6.835-45	4.2730-765	[illegible]	[illegible]

U.S. $ in Montreal. U.S. $=$102.62-64 Canadian cents. Canadian $ in New York. C$=97.50-52 U.S. cents. U.S $ in Milan 882.20-882.50. Sterling in Milan 1500.00-1501.25. * Rates for Feb. 14.

EURO-CURRENCY INTEREST RATES*

Feb. 15	Sterling	U.S. Dollar	Canadian Dollar	Dutch Guilder	W. German mark	Swiss franc
Short term	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3-3¼
7 days' notice	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2-2¼
Month	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1⅛-1¼
Three months	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1⅝-1⅞
Six months	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1⅞-2
One year	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2¼-2⅜

Long-term Eurodollar deposits: two years 7½-7¾ per cent.; three years 7¾-7¾ per cent.; four years 7¾-7⅞ per cent.; five years 7¾-7⅞ per cent. nominal closing rates.

* Rates are nominal closing rates.

† Short-term rates are call for sterling, U.S. dollars and Canadian dollars: two days' notice for guilders and Swiss francs.

GOLD MARKET

	Feb. 15	Feb. 14
[illegible]	[illegible]	[illegible]

FOREIGN EXCHANGES

Feb. 15	Bank rate %	Day's spread	Close
New York	5¼	1.6950-1.7055	1.7040-1.[illegible]
Montreal	8	1.7380-1.7470	1.7460-1.[illegible]
Amsterdam	5	4.25-4.28	4.26½-4.[illegible]
Brussels	8	62.28-62.80	62.60-62[illegible]
Copenh'gen	10	9.99-10.05	10.07½-10[illegible]
Frankfurt	3½	4.05-4.11	4.09½-4.[illegible]
Lisbon	6½	55.00-55.60	55.40-55[illegible]
Madrid	7	115.80-117.60	117.40-11[illegible]
Milan	15	1,496-1,506	1,503-1,5[illegible]
Oslo	6	8.92½-8.99½	8.98-8.9[illegible]
Paris	10½	8.43-8.48	8.47½-8.4[illegible]
Stockholm	8	7.17-7.23	7.21½-7.2[illegible]
Tokyo	6½	475-486	485-48[illegible]
Vienna	4	28.80-29.50	29.10-29.[illegible]
Zurich	2	4.23½-4.30	4.28½-4.2[illegible]

‡ Rates given are for convertible francs. Financial franc 62.55-62.75.

OTHER MARKETS

			Notes Rates
Argentina	512.45-512.65	Argentina	470-56
Australia	1.5447-1.5608	Austria	28½-[illegible]
Brazil	21.24-21.44	Belgium	62-[illegible]
Finland	6.50-6.51	Brazil	27½-2[illegible]
Greece	62.639-64.275	Canada	1.74-[illegible]
Hong-Kong	7.9125-7.9306	Denmark	9.95-1[illegible]
Iran	118-122	France	8.40-8.[illegible]
Kuwait	0.486-0.496	Germany	4.00-4.[illegible]
Luxemburg	62.60-62.75	Greece	65-69
Malaysia	4.2450-4.2535	Italy	1500-1[illegible]
N. Zealand	1.7727-1.7907	Japan	4.80-[illegible]
Saudi Arabia	5.55-6.05	Netherlands	420-43[illegible]
Singapore	4.1800-4.1910	Norway	8.93-[illegible]
S. Africa	1.4680-1.464[illegible]	Portugal	55-[illegible]
U.S.—		Spain	115-1[illegible]
Canada		Switz'land	4.15-4.[illegible]
C$1—		U.S.	1.70-[illegible]
U.S. cents	97.57-97.50	Yugoslavia	52-[illegible]

Rate for Argentina is free rate.

FORWARD RATES

	One month	Three months
New York	1.65-1.55 c. pm	4.45-4.55 c. pm
Montreal	1.30-1.20 c. pm	3.30-3.20 c. pm
Amst'dam	4-3 c. pm	10¼-9¼ c. pm
Brussels	45-30 c. pm	1.10-90 c. pm
Cop'nhg'n	1 ore pm-1 ore dis	2½-½ ore pm
Frankfurt	4⅝-3⅝ pf. pm	11⅛-10⅛ pf. pm
Lisbon	20c. pm-25c. dis	20c. pm-20c. dis
Madrid	20-100 c. dis	160-260 c. dis
Milan	8-18 lire dis	36-56 lire dis
Oslo	5½-3½ ore pm	13¼-11¼ ore pm
Paris	4¼-3¼ c. pm	10¼-9¼ c. pm
Stockh'lm	2 ore pm-par	5½-3½ ore pm
Vienna	18-8 gro pm	49-39 gro pm
Zurich	5⅛-4⅛ c. pm	14⅞-13⅞ c. pm

Six-month forward U.S. dollar 7.60-7.[illegible] c. pm and 12-month 12.95-12.85c pm.

BRAZIL

Feb. 15	Price Cruz	+ or −	Div. Cruz	Yld.
Banco Brasil PP	5.62	—	0.18	[illegible]
Belgo Mineira OP	2.91	—	0.14	[illegible]
Brahma PP	1.53	+0.02	0.15	[illegible]
Docas Santos OP	0.90	−0.02	0.15	[illegible]
Lojas Amer OP	2.95	−0.10	0.20	[illegible]
Petrobras PP	2.50	+0.01	0.11	[illegible]
Samitri OP	3.04	−0.09	0.14	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Vol. Cr.37.9m. Shares 17.1m. Source: Rio de Janeiro SE.

OSLO

Feb. 15	Price Kroner	+ or −	Div. %	Yld. %
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

JOHANNESBURG

MINES

Feb. 15	Rand	+ or −
[illegible]	[illegible]	[illegible]

INDUSTRIALS

Feb. 15	Rand	+ or −
[illegible]	[illegible]	[illegible]

SPAIN

February 15	Per cent.	+ or −
[illegible]	[illegible]	[illegible]

FARMING AND RAW MATERIALS

Coffee tops £3,200 tonne

By Richard Mooney

COFFEE PRICES surged to new peaks yesterday as a new wave of buying hit the market. [illegible] said the buying, which [illegible] March coffee futures by [illegible] to £3,211 a tonne, included speculative and chartist [illegible].

Renewed physical offtake, coupled with high producer prices and [illegible] supplies were cited as [illegible]lying factors, but traders [illegible] the rise mainly as an extension of Monday's strong advance. Reports circulating in London [illegible] 10 per cent. rise in the [illegible] contribution quota [illegible] tax) may have aided the rise but these were later [illegible] from Rio de Janeiro by [illegible] Brazilian Coffee Institute. [illegible] of Brazilian buying [illegible] London futures market also denied.

[illegible] the London cocoa market, while, futures prices con[illegible] Monday afternoon's up[illegible] and the May position ended [illegible] higher at £2,344.75 a tonne. [illegible] sources said the rise was [illegible] by a firmer tone in [illegible] York and a larger than [illegible] Dutch January grinding figure of 11,490 tonnes (9,970 [illegible] January, 1976).

World silver surplus estimated

PARIS, Feb. 15.

[illegible] shortfall in world silver [illegible]uction was turned into a [illegible] surplus last year by a high [illegible] of Indian exports and by [illegible] Germany melting down [illegible] coins, bullion processors [illegible] Lyon-Alemand Louyot [illegible] said here.

[illegible] its latest monthly bulletin, [illegible] said production last year [illegible] 7,589 tonnes and con[illegible]tion 13,126 tonnes.

[illegible] exports from various coun[illegible] meltings and recoveries [illegible] industrial processing [illegible] about 6,000 tonnes. [illegible] a surplus of over 300 [illegible]. About 1,700 tonnes were [illegible] as exports from India [illegible] Germany melted about 871 [illegible].

[illegible]AX FURNACE OPERATION

[illegible]EENWICH, Conn., Feb. 15.

[illegible]ax said its lead and zinc [illegible] lifted the *force majeure* [illegible]tion declared on February [illegible] to the failure of the blast [illegible] at the Boss, Mo., lead [illegible].

[illegible] company said the furnace [illegible] in operation and lead [illegible] are expected to re[illegible] to-day.

Report warns of danger to social contract

BY JOHN EDWARDS, COMMODITIES EDITOR

A WARNING that the social contract on wages and prices would be severely undermined by any devaluation of the "green pound" is to be given to the Labour Party national executive committee next week in a special discussion paper prepared by the party's research department.

It gives strong backing to the Government's opposition to any devaluation of the "green pound," as proposed by the EEC Commission in its farm price package plan for the 1977-78 season.

The paper warns that a devaluation of the "green pound"—the artificial currency rate used to translate EEC farm prices into U.K. terms—would have a serious effect on food prices in Britain.

Any price increases resulting from a devaluation would be in addition to other increases to which Britain is already committed during the transitional period towards full membership of the EEC and any that might be imposed under the forthcoming Farm Price Review.

Moreover, it is argued that the sharp drop in U.K. consumption following a further rise in food prices would also harm the Community.

The EEC would be forecast to buy into intervention the large surpluses of agricultural produce the British could no longer afford to buy.

This would offset to a significant extent any savings from monetary compensatory amounts resulting from the devaluation.

The paper claims that the Common Agricultural Policy is in a state of continuing crisis. "Its central principle of common price has been found to be utterly unworkable and has had in practice, to be abandoned."

"To accept a devaluation of the 'green pound' would merely serve to shore up, at the expense of the British consumer, a policy which is already crumbling and which must inevitably be completely recast.

"We must abandon the fiction of common prices and introduce a pricing system which reflects the needs and interests of both consumers and producers. Until such a reform is implemented we cannot accept a devaluation of the 'green pound'."

It is appreciated that maintaining the present level of the "green pound" would not serve the immediate short term interests of British farmers and farmworkers. But farmers had also to recognise that under the social contract workers are facing the prospect of a real cut in their living standards.

Devaluation of the "green pound" would give an effective pay increase to British farmers far exceeding the norm of 4.5 per cent.

It would not be in the national interest—nor in the long-term interest of the EEC as a whole—for Britain to give in to pressure for measures which are intrinsically unsound and damaging to the national economy, the paper declares.

U.K. food bill 'to rise £600m.'

BY STUART ALEXANDER

THE LATEST EEC price proposals will add about £600m. to housewives' shopping bills this year, said Mr. Derrick Hornby, president of the Food Manufacturers' Federation, in London yesterday.

Calling for a freeze on all EEC farm prices he said that the housewife had traded down to the point where she could not go much further.

He said that the industry badly needed a return to sufficient profitability to finance investment, but it did not wish to increase prices to the extent that resistance set in.

The extra £600m. would be caused by the combined effects of the average 3 per cent. increase in farm prices, a devaluation of the "green pound" and the two final transitional steps to EEC price levels.

Additionally there would be an estimated £1bn. to be absorbed in raw material cost increases, packaging, fuels, sterling depreciation, labour and tinplate.

Further criticism of the EEC's food policy came from Mr. Archie McNicol, chairman of the U.K. Provision Trade Federation, last night, writes Peter Bullen.

Among the anomalies which needed to be sorted out, he told the Federation's annual dinner in London, was the high duty on many items of foods from third countries such as canned fruit.

"Although Europe can only supply a small part of our requirements, nevertheless the duty on our imports from third countries will be no less than 24 per cent. at the end of this year," he said.

On salmon, tuna and pilchards alone the duty was adding £4½m. to the price consumers have to pay on items which either could not be supplied at all or only partially from EEC sources.

Brussels bid to end pig subsidy scheme

BY ROBIN REEVES

BRUSSELS Feb. 15.

A DATE at which the Government will be required to suspend payment of the special subsidy to pig producers of 50p a score is expected to be announced by the European Commission here tomorrow.

During a short EEC Council of Agriculture Ministers discussion on the pig meat situation to-day, Mr. Finn Gundelach, the Brussels Commissioner for Agriculture, stressed that the Commission was pursuing its legal action against the U.K.

The next step is the setting of a deadline for removing the subsidy, which if not complied with risks landing the U.K. Government in the dock of the European Court for breach of EEC competition rules.

But a crumb of comfort for the U.K. was that Mr. Gundelach also said he would like to act as mediator. Moreover, a reiteration by Dr. Gavin Strang, Parliamentary Under-Secretary at the Ministry of Agriculture, of the main British justification for the action found a sympathetic echo in the Council.

After Dr. Strang repeated that the method of calculating the monetary subsidies on bacon and canned hams was unfairly based, making imports unreasonably cheap, M. Christian Bonnet, the French Minister, agreed that the monetary subsidies for processed agricultural products generally were too high.

First offer of Soviet softwood

By A Correspondent

EXPORTLES, the Soviet state selling organisation for forest products, made its first offer of softwood to the U.K. market last week for this season.

The nominal quantity is 400,000 cubic metres which, if the Russians follow their usual practice, will be topped up according to demand. Soviet sales to the U.K. last year totalled 1.6m. cubic metres.

The price agreed averaged over the five grades shows a rise of just under 10 per cent. which is in line with recent offers to Holland and West Germany. Terms of the offer include a currency clause which provides for direct adjustment of the price if sterling falls below $US1.60 or rises above $1.84.

Trade sources indicate that there was tough bargaining over the prices and especially over one key grade but it is thought that the resulting schedule will have the support of the larger U.K. buyers.

Price levels of the Russian wood are below the present Swedish asking prices for comparable stocks with the kroner at its present value.

Big Common Market sugar surplus likely

BRUSSELS, Feb. 15.

THE EEC Commission said it estimates total EEC exportable sugar surplus for 1977-78 at 2.9m. tonnes.

But it expects serious difficulties exporting this amount because of increasing world market surpluses since mid-1976 and world prices just over half the Community price.

In 1976-77, EEC sugar production was only 10m. tonnes because of the drought, compared with 9.5m. tonnes consumption leaving a surplus around 1.8m. tonnes including preferential imports under the Lomé Convention with African, Caribbean and Pacific Countries.

Later, Reuter reported from Ratzeburg that European sugar production for 1976-77 (September to August) is estimated at 28,498,000 tonnes raw value by statistician F. O. Licht in his first estimate of the 1976-77 European sugar balance. This compares with his 1975-76 estimate of 26,097,000 tonnes.

During 1976-77 European sugar stocks are estimated to rise to 5,450,000 tonnes from 4,739,000 tonnes a year earlier including stocks of imported sugar cane.

CALIFORNIA

Worst-ever drought threatens crops

BY ART GARCIA

GOVERNOR Edmund Brown, Jr., of California, has left open the possibility of state-wide water rationing to combat what may become the worst drought in the state's history.

Reservoirs continue to shrink as state and local officials begin preparing emergency plans to allocate water reserves where most needed, primarily in the parched northern and central areas.

The usually "dry" southern part of the state is drawing additional supplies from the Colorado River to top up reserves in the normally "wet" northern region.

While much of the eastern and midwestern U.S. shivered through one of the harshest winters ever, California has basked in spring-like weather. The lack of rainfall comes on the heels of last year's drought, which produced the third driest year in the state's history. This year appears certain to surpass 1924, which brought the worst drought on record so far.

Ripple effect

Agriculture, California's number one industry, last year produced total cash receipts of $8.9bn., a record. The state grows 40 per cent. of U.S. vegetables and 60 per cent. of the nation's fruits and nuts, but farmers in the usually fertile San Joaquin Valley have been told to prepare for reductions of as much as 75 per cent. in this year's irrigation water allotments, and possibly more.

Estimates are that the state's farmers may sustain losses of more than $1bn. if there is no break in the present drought and experts say the ripple effect could mean a $3bn. impact on California's general economy

This would be felt in higher grocery and meat prices, shutdowns of food processing operations, job layoffs that would add to California's high unemployment rate and fewer purchases of farm machinery and equipment.

Farm losses because of a lack of rainfall and irrigation water were an estimated $510m. during last year, prompting President Gerald Ford, as one of his final acts in office to declare 23 California counties disaster areas, making them eligible for low-interest federal loans

There are about 63 000 farmers in California, many of whom officials fear will face ruin this year. December and January, normally the months of heaviest rainfall, passed with little precipitation and long-range weather forecasts offer little hope of relief this month.

In normal times, the October-to-October rainfall at Shasta Dam in northern California measures 60 inches. Between October 1 and February 8, rainfall totalled just six inches, compared with the normal for that period of 38. "We're now projecting an inflow of 2.8m. acre-feet of water into the state's three main reservoirs," says Mr. David Coleman, chief of central valley operations for the U.S. Bureau of Reclamation.

"Normal for the year is 9.5m. acre-feet. Last year, we had 5m. acre-feet, which was the third driest year. In 1924, we had a comparable 3,240,000 acre-feet for those three reservoirs." (An acre-foot is the amount of water required to cover an acre of land to a depth of one foot.)

His department is urging all Californians to cut their use of water by at least 10 per cent. "no matter where they are and how much water they have," he says. For some heavily populated urban areas, reductions in water usage already have been mandated.

Martin County, north of San Francisco's Golden Gate, is one of the hardest hit. Officials there have adopted water rationing, limiting use to 46 gallons a day for each person.

Industrial users must cut usage by 10 per cent., commercial customers by 25 per cent., multiple dwellings with five or more units by 30 per cent., public agencies by 25 per cent. and parks, golf courses, freeways and cemeteries by 50 per cent.

1.1m. customers

Directors of the East Bay Municipal Utility District voted mandatory water restrictions this month for its 1.1m. customers in Alameda and Contra Costa counties, which include the city of Oakland and many San Francisco Bay area suburbs.

In Marin, Alameda and Contra Costa counties, more severe restrictions were not imposed because of official concern about adding to already high unemployment rolls.

In San Francisco, residents have been urged voluntarily to reduce the amount of water they use. A National Weather Service official in Sacramento labels the present California drought the fourth worst weather-caused economic disaster in U.S. history, trailing only three hurricanes that caused greater dollar losses.

Ski operators in the Sierra Nevada have been crippled by this season's lack of snow, nursery and car wash businesses are suffering and residents of some counties are recycling dish and bath water to feed plants and gardens. Hardware stores report a run on pails and buckets by customers hoping to preserve water from baths and washing machines for re-use.

Vote on amended wool plan

SYDNEY, Feb. 15.

THE WOOL Industry Policy Committee will meet in Melbourne on Thursday to vote on a proposed scheme for the Australian Wool Corporation to buy a limited quantity of wool direct from farmers.

The committee is the policy arm of the Australian Wool Industry Conference the woolgrowers' "parliament" embracing a number of rural organisations.

The new scheme, called the Limited Opportunity to Purchase Trial (LOPT), will, if approved by the committee and then the Government, enable the corporation to buy wool from farmers, assemble it at one point and then auction it.

Wool industry sources said the corporation proposed that it should have the right to buy from farmers up to 150,000 bales in the 1977/78 season, starting July 1, but they understood the committee wants the maximum to be 500,000 bales (out of the total clip of around 4.5m.) Reuter

COMMODITY MARKET REPORTS AND PRICES

BASE METALS

COPPER—Steady on the London Metal Exchange with currency movements the main influence. Following Comex overnight forward metal opened at £858 but slipped to a day's low of £834. In the afternoon Comex was again firm, on commission-house buying, while London [illegible] in a narrow range, between £855 [illegible] before closing on the Kerb at £824, three months £855, 54.5, 54, 54.5, 55. Cathodes: Cash £815, three months £845.5, 45, 45.5. Kerb: Three months £854.5. Cathodes: Three months £845.5. Afternoon: Wirebars, three months £857, 58, 57.5, 56.5, 56, 56.5, 57. Three months £847. Kerb: Three months £857, 56.5, 57. [illegible]

TIN—Slightly easier with forward metal losing ground in the morning although the East was firmer overnight. After an opening at £6,130 the price was depressed [illegible] advance to £6,120 before a close on the Kerb of £6,115. Turnover: 2,850 tonnes.

Morning: Standard, three months £6,125, 20, 15, 10, 6,100. Kerb: Standard, cash £5,990, three months £6,100, £6,095. Afternoon: Standard, cash £6,005, three months £6,125, 20, 15. Kerb: Standard, three months £6,110, 15, 20.

LEAD—Little changed in quiet trading. The lifting of the Amax force majeure declaration had little effect. [illegible]

ZINC—[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

I.G. Index 01-351 3466 May Coffee 3206½-3215½

SILVER

Silver was fixed 1p an ounce higher for spot delivery in the London bullion market yesterday at [illegible]

COFFEE

ICO indicator prices for Feb. 14 (U.S. cents per pound): [illegible]

RUBBER

SLIGHTLY STEADIER opening on the physical market. [illegible]

COCOA

[illegible]

GRAINS

THE BALTIC—[illegible]

LONDON GRAIN FUTURES MARKET (GAFTA)—Wheat, barely steady. Closing: March 87.35, May 90.10, Sept. 92.85, Nov. 95.00, Jan. 98.05. Business: March 87.95-87.35, May 90.70-90.10, Sept. 92.45-92.35, Nov. 95.50-95.00, Jan. nil. Sales: 232. Barley, barely steady. Closing: March 81.90, May 84.80, Sept. 88.10, Nov. 91.06, Jan. 94.05. Business: March 82.55-81.90, [illegible]

SOYABEAN MEAL

[illegible]

JUTE

JUTE—Firm. [illegible]

c. and f. U.K. for Feb. shipment: 10-oz 40-inch £8.71; 7½-oz £6.50 per 100 yards. March: £6.82 and £6.58. April-June: £8.94 and £6.69. "B" twills: £28.01: £28.01 and £28.12 for the respective shipment periods. Yarn and cloth prices firmer.

LONDON—Firm. Bangladesh White C grade Feb.-March $420. Bangladesh White D grade Feb.-March $408. A long ton.

CALCUTTA—Firm. Indian spot Rs.335.00. Dundee Tossa Four spot [illegible]

SUGAR

LONDON DAILY PRICE [illegible]

WOOL FUTURES

LONDON—Unchanged to a shade lower following overseas terminal advices. [illegible]

MEAT/VEGETABLES

SMITHFIELD [illegible]

Crimson 2.00-2.30, Granny Smith 20-lb 3.30-3.50, 40-lb 5.60-6.20: Italian: Per pound, Golden Delicious 0.10, Granny Smith 0.15, Starking 0.09, Romes 0.09, Belforts 0.08: Tyrolean: Starking, cell-pack 0.10: Hungarian: 40-lb Starking 5.00. Pears—Per pound Italian: Passacrassane 1.30: S. African: Clapp's Favourite 34-lb 4.50. Williams Bon Chretien cartons 6 30. Tomatoes—Canary: 3.00-3 60. Onions—Spanish: 6.80-7.00: American: 5.90-6 00: [illegible]

COTTON

COTTON, Liverpool—[illegible] F. W. Tattersalls reports.

PALM OIL

LONDON PALM OIL—Six lots traded on quiet day closing at similar levels to Monday. As with physical, sector prices firm but market looking for definite news to develop trend. Sime Darby reports. Closing: Feb. 310-294, April 305-306, June 310-306, August 307½-306, Oct. 310-305, Dec. 310-305, Feb. 310-305.

*

GRIMSBY FISH—Supply poor, demand good. Prices at ship's side (unprocessed, per stone): Shelf cod £3.50-£4.00, codlings £3.30-£3.70; large haddock £3.80-£4.00, medium £3.00-£3.60, small £2.50-£3.00; large plaice £3.00, medium £2.60-£2.70, best small £2.60-£3.30; skinned dogfish, medium £8.80, large £9.00; saithe £2.10-£2.40.

Canada exports less copper and nickel

CANADIAN COPPER and Nickel output declined last year but zinc and iron ore production rose, as did that of gold and silver, reports AP Dow Jones from Ottawa.

Primary copper production totaled 797,628 tons down from 808,905; primary nickel 263,336 tons down from 266,958; iron-ore 61,743,998 tons up from 49,485,544; silver 42,135,515 ounces up from 39,894,650, refined lead 193,698 tons up from c89,064.

Refined zinc production totaled 520,639 tons down from 470,622, and gold output 1,686,500 troy ounces up from 1,653,613.

From La Paz meanwhile Reuter reports that Bolivia exported $378m. worth of metals last year compared with $314m. worth the previous year, according to the Mining Ministry.

The Ministry said the bulk of earnings came from tin, with 20m. kilos of concentrates worth $151m. and 9.8m. kilos of tin metal worth $74m., exported

Other main metal exports were zinc, wolfram and silver. The statement said the main buyer was the U.S.

PRICE CHANGES

Prices per ton unless otherwise stated

	Feb 15 1977	+ or —	Month ago
Metals			
Aluminium	£650		£610
[illegible]	[illegible]	[illegible]	[illegible]

*Nominal. † Seller. ‡ Unquoted. [illegible]

COPRA, Philippines—March to May $395 resellers [illegible] European ports.

FINANCIAL TIMES

Feb. 15	Feb. 14	Month ago	Year ago
270 46	[illegible]	[illegible]	[illegible]

REUTER'S

Feb. 15	Feb. 14	Month ago	Year ago
1627.9	1621.7	1601.0	1224.6

DOW JONES

Dow Jones	Feb. 15	Feb. 14	Month ago	Year ago
Spot	[illegible]	[illegible]	[illegible]	[illegible]
Futures	[illegible]	[illegible]	[illegible]	[illegible]

MOODY'S

[illegible]	[illegible]	[illegible]	[illegible]	780.6

U.S. Markets

NEW YORK, February 15.

Cocoa—Ghana spot 190½ (same). Bahia spot 190½ (same), March 171.00 (same), May 171.00 (170.00), July 166.50, Sept. 160.85, Dec. 147.95, March 142.20, May 137.55, July 133.00 nom. Sales: 2,221.

Coffee—"C" Contract: March 244.00: [illegible]

Wheat—SCWRS 13.5 per cent. protein content cif St. Lawrence 377 (375).

All cents per pound ex-warehouse unless otherwise stated. * Cents per 60-lb bushel ex-warehouse. ф $'s per troy ounce—100-ounce lots. †Chicago loose $'s per 100 lbs—Dept. of Ag. prices previous day. Prime steam f.o.b. NY bulk tank cars. ‡‡ Cents per troy ounce ex-warehouse. b New "B" contract in $'s a short ton for bulk lots of 100 short tons delivered f.o.b. cars Chicago, Toledo, St. Louis and Alton. ‡ $'s per troy ounce for 50-ounce units of 99.9 per cent. purity delivered NY. ** Cents per 69-lb bushel in store. ††Cents per 56-lb bushel ex-warehouse. 5,000 bushel lots. c Cents per 24-lb bushel. § Cents per 48-lb bushel ex-warehouse, 5,000 bushel lots. ‖ Cents per 56-lb bushel, ex-warehouse, 1,000-bushel lots.

Little relief to U.S. wheat

WASHINGTON, Feb. 15.

A THAW during the week to February 13 gave little relief to the moisture shortage of the U.S. winter wheat crop, much of which was fully exposed, the U.S. Agriculture Department said today.

The Florida sugarcane harvest was very active and young cane remained in poor condition.

Livestock feed supply remained critical in all areas except the Pacific north-west and some of the north central area. Reuter

STOCK EXCHANGE REPORT

Partial rally on reasonable demand in light trading

Gilts up to £1⅛ better and share index up 9.8 at 376.1

Account Dealing Dates
Option

*First Dealings	Declarations	Last Dealings	Account Day
Jan. 31	Feb. 10	Feb. 11	Feb. 22
Feb. 14	Feb. 24	Feb. 25	Mar. 8
Feb. 28	Mar. 10	Mar. 11	Mar. 22

* "New time" dealings may take place from 9.30 a.m. two business days earlier.

Gleaning some comfort from the explanation behind the disappointing January trade figures, buyers made themselves felt yesterday in stock markets which were judged to have been oversold after Monday's sharp shake-out. Sellers were less in evidence and bear-closing helped to set the early firm tone which held throughout the day. Selective demand was also in progress and this often found the market short of stock to leave many disproportionate gains. The FT 30-share index was at its best of the day at 1 p.m. when it was showing a rise of 10.3, and the close was 376.1 which represented a rally of 9.8 following Monday's drop of 15.2.

Share prices in the leaders were tending to ease a shade in places in the after-hours' trade but British Funds held fully firm to the end, the recovery here extending to 1⅛ in long-dated issues after the previous day's falls to 2¼. The Government Securities index picked up nearly a half of Monday's loss with a rise of 0.72 to 65.15, still 1.30 off last week's 3½-year peak of 66.45. Recent speculative favourites in equities became more prominent, particularly stocks with North Sea oil interest, while Properties stood out with some good gains and the market as a whole was more responsive to encouraging company news items.

Widespread gains were recorded in the FT-Actuaries indices, the three main group indices all improved by about 1 per cent. with the All-share at 161.01, and rises in FT-quoted equities outnumbered falls by 3-to-2, for the first time in eight business days. Official markings were 7,065 compared with 7,590 on Monday and 7,935 on Tuesday of last week.

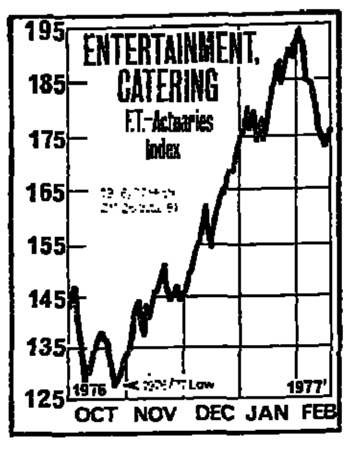
Having had time to assess the explanations put forward for last month's largest-ever trade deficit, the market in British Funds decided that Monday's sharp fall had been overdone. Buyers took the same view and immediately began looking for stock, despite *higher opening quotations, a development* which, after a lively morning trade, extended the recovery finally to a full point and more at the longer end. Also making an impression on sentiment was the feeling that if interest rates had indeed stabilised, the yields offered by both short and longer-dated maturities were still attractive. A similar trading pattern among the mediums and nearer issues brought recoveries relative with the falls sustained on the previous day. Thus, the former ended a point or so higher and the shorts rarely more than ¼ firmer. Monday's newcomer, **Finance for Industry 14 per cent., 1983**, stock put up a spirited performance and in £10-paid form closed near the day's best at 11⅜, or 1⅜ premium, for a net gain of ⅜. Corporations followed Monday's reaction in the main funds and lost a point in places.

Institutional demand failed to arrest a slightly lower trend in the investment currency market. Sterling's recovery contributed to the softer tendency, but the trading range in the premium was extremely narrow and the close was only a point down at *100½ per cent.* Yesterday's SE conversion factor was 0.7604 (0.7613).

Official London dealings started yesterday in **Time Incorporated**, the U.S. publishing and forestry group's; the shares opened and closed at £27¼.

Lloyds rally

Monday's sharp falls were retrieved by the big four Banks yesterday as buyers returned in anticipation of the forthcoming dividend season which begins with Lloyds on Friday. Down 10 on Monday, the latter picked up 12 to 197p, while similar improvements were seen in **Barclays**, 247p, and **National Westminster**, 217p. **Midland** ended 10 higher at 255p. In Foreign issues, **Hongkong and Shanghai** added 6 to 358p: the preliminary results are due next Tuesday. Discounts rallied in sympathy with gilt-edged securities. **Cater Ryder** did particularly well at 240p, up 15. **Alexanders** rose 10 *to 190p as did* **Allen Harvey and Ross**, 390p, with **Union** similarly higher at 295p. Awaiting the next move by **Provident Financial** (2 better at 77p) in the bid situation, **Cattles Holdings** edged forward 2 to 40p in Hire Purchase, where **Wagon Finance** ended 3 up at 54p.



Insurances took a turn for the better but the volume of trade *left much to be desired.* **Commercial Union** picked up 5 to 112p and **Royals** added 8 to 300p, while **Sun Alliance** were 7 to the good at 395p. **C. E. Heath**, 7 up at 485p, were prominent again in Brokers.

Breweries shrugged aside recent despondency caused by the forthcoming Price Commission inquiry into the *industry's profits* and moved higher in quiet trading. **Bass Charrington**, at 90p, recouped 4 of the previous day's fall of 5, while **A. Guinness** hardened 2 to 126p and **Allied Breweries** rose 3½ to 61p.

Buildings rallied well, but the volume of business was small. **AP Cement**, at 173p, recovered 5 of the previous day's fall of 6, while **International Paint** added 15 to 385p in a thin market. **G. W. Sparrow** put on 5 to 130p and improvements of 4 were recorded in **Leonard Fairclough**, 162p, and **Magnet and Southerns**, 127p. **Marley** hardened 2 to 59p as did **Marchwiel** to 122p and **Tarmac** to 140p. **Norwest Holst**, *at 100p, on the other hand, lost 2* of the previous day's speculative gain of 6½ which owed much to Press suggestions of bid possibilities. **Heywood Williams** lost 3 to 38p.

Down 15 on Monday, **ICI** were marked up 5 to 330p at the out*set and remained at that level* all day in Chemicals; the results are due on February 24. A weak market of late following adverse comment ahead of the results due on March 8, **Fisons** edged forward 3 to 283p, while **Albright and Wilson** ended a similar amount better at 90p in front of to-day's results.

A disappointing set of retail sales figures failed to deter Stores, which played their part in the rally. **UDS** added 3 at 57p and **Marks and Spencer** were a penny dearer at 97p. Press comment in front of to-day's AGM attracted renewed interest in **Burton**, the Ordinary closing 3 to the good at 71p and the A 2 dearer at 59p. **Mothercare** hardened 2 to 216p as did **W. H. Smith A** to 352p.

Decca better

Leading Electricals staged a *useful rally, with* **GEC** *closing* 6 higher at 183p and **EMI** 3 dearer at 204p, while **Plessey** were 2 to the good at 64p. Awaiting further news of its Milgo Electronics bid, **Racal Electronics** firmed 9 to 266p, while **Decca**, 240p, and the A, 230p, both regained 7 of the recent ground lost on the profits' warning for the full year.

Leading Engineerings regained all the previous day's lost ground and **Tube Investments**, helped by brokers' circulars, bounced back 12 to 352p, after 354p. **Hawker** 10 to 494p and **GKN** 8 to 301p. **John Brown**, still a popular issue, picked up 4 to 148p, and **Vickers** the same amount to 148p. **Davy** followed with a gain of 8 to 162p, while **Herbert Morris** responded to the sharply increased profits with an advance of 7 to 147p, after a 1976-77 high of 148p. Among numerous recoveries of 4 or so were **Acrow A**, 55p. **Babcock and Wilcox** were similarly dearer at 74p along with **B. Elliott**, at 70p. **Serck** following the fortunes of **Associated Engineering** moved up 3 to 84½p, while **Westland** put on 3 to 62½p. Among smaller-priced issues, **Arthur Lee** made belated response to Press comment and improved 2 to 20p. **Weeks Associates** were unchanged at 16p ex-rights; the price in yesterday's publication was incorrect. In *Shipbuildings*, **Hawthorn Leslie** extended their recovery to 27p, up 2.

Foods made a better showing and closed firmly following a reasonable trade. **J. Lyons** improved 4 to 66p with the help of call option business, while gains of 6 were seen in **Tate and Lyle**, 258p, and ***Associated Dairies***, 222p. **J. Bibby** continued firmly, rising 5 to a 1976-77 peak of 124p for a two-day gain of 9 on fresh speculative support. **United Biscuit**, at 135p, recouped the previous day's loss of 4, while **Brooke Bond**, 44p, and **Spiller's**, 28½p, both finished 1½ harder. **Avana** hardened 1½ to 181p, but ***Watson and Philip*** closed 2 easier at 44p following acquisition news. **FMC**, at 71p, gave up 3 of the previous day's speculative gain of 7. Supermarkets made modest headway. **Lennons** responded to Press comment with a rise of 2 to 37p, while similar improvements were seen in **Hillards**, 128p, and **Kwik Save**, 148p. Awaiting fresh developments in the bid situation, **Gateway Securities A** hardened a penny to 62p in sympathy with a rise of 2 to 207p in **Linfood**. Apart from **J. Borel**, two points cheaper at a 1976-77 low of £28 on the first-half loss, Hotels and Caterers were generally better where changed. **Ladbroke** finished 1½up at 92½p and **Grand Metropolitan** 3 higher at 67p.

Watshams wanted

The miscellaneous Industrial leaders staged a useful rally from the depressed levels which fol*lowed Monday's announcement of* a record trade deficit in January. A firmer performance by sterling helped and with a combination of bear closing and cheap buying, prices improved quite sharply. **Unilever** rose 14 to 424p and **Glaxo** added 12 to 430p, while improvements of between 6 and 8 *were recorded in* **Rank Organisation**, 170p, **Reckitt and Colman**, 340p, and **Beecham** 398p. Elsewhere, further consideration of the recent sale of a subsidiary helped **Watshams** gain 8 to 150p, after 151p, while **De La Rue**, an outstanding market of late on the excellent third-quarter profits, added 10 to 310p. Trading statements prompted gains of anything from a penny to 4 in **Aaronson Bros.**, 55p, **Bath and Portland**, 38p, **Evode**, 52p, **W. Canning**, *41p, and* **Thermal Syndicate**, 90p. **ICL** hardened 4 to 179p and **Gripperrods** picked up 3 to 35p. **Low and Bonar**, however, shed 5 to 135p and **Lawtex** receded 3 to 24p.

Dowty featured Motors and Distributors, rising 8 to 106p in active *trading.* **Lucas Industries** rallied 7 at 222p, while **Dunlop**, 81p, and **Turner Manufacturing**, 67p, put on 2 and 3 respectively. **Manchester** hardened 1½ to 13½p, but losses of 2 were seen in **Godfrey Davis**, 35p, and **Group Lotus**, 20p.

North Sea stocks were in full cry once again yesterday as buyers returned. **Associated Newspapers** rose 12 to a 1976/77 peak of 160p, while **Thomson** put on 10 to *405p* as did **I. C. Gas** to 355p. **Daily Mail A** added 8 to 265p and **Carless Capel and Leonard** were notable for an improvement of 5 to 37p. **National Carbonising** edged *forward 2 to 48p.*

Oils rebound

Well to the fore again in the day's list of active stocks, Oils rebounded to varying degrees. **Burmah** regained most of the Monday's fall to close 4 higher *at 70p and* **Shell**, *at 496p*, retrieved 6 of the previous day's loss of 14. Local interest in **British Petroleum** was sufficient to offset the effects of overnight Wall Street influences and the price gradually improved up 10 to 914p. Fairly aggressive speculative inquiry developed for ***Tricentrol*** which rose 10 to 138p: bid hopes were intermingled with renewed North Sea optimism. Elsewhere, **Ultramar** recovered 4 to 138p and **LASMO** 5 to 308p, while a small demand raised **Attock** 4 to 64p. Amsterdam firmness was reflected in a rise of ½ to £42½ in **Royal Dutch**.

The view that although the move towards lower interest rates may have ceased for the present, there was little fear of the trend being reversed in the near future put fresh heart into Properties. **Land Securities** rebounded 5 to 152p and **Stock Conversion** pulled back 6 to 178p, but the feature *of the day was undoubtedly* **Bernard Sunley**. Renewed speculation of a bid from Eagle Star Insurance forced Sunley up to 128p before a slight softening to 126 for a net rise of 16. **MEPC** recovered 3 to 69p and **English** 2 to 41p, while **Hammerson A**, after opening lower at 348p, closed 5 higher on balance at 360p. **Peachey** revived with a gain of 2½ to 45p and **Land and House** were noticeable at 65p, up 4.

Investment Trusts took a turn for the better, closing on a firm note following some institutional interest in the absence of recent small persistent selling from the public. **Investors Capital** finished 2½ up at 62p, after 64p, following Press comment, while **Oil and Associated**, 60p, and **Estates House**, 205p, put on 3 and 4 respectively. **Bishopsgate Property and General Investments**, at 4½p, recouped a penny of the previous day's loss of 3 which followed *news that the company* has exceeded its borrowing limits and is continuing negotiations for a moratorium with the relevant lenders. Financials were noteworthy for profit-taking in **R. Kitchen Taylor**, which, at 34p, gave up 6 of the previous day's gain of 17. **Grimshawe** eased a *penny* to 11p in front of to-day's interim figures, but small buying pushed **Park Place** up 1½ to 14p and **Charterhouse** 2 to 48p.

Textiles closed narrowly mixed. **Courtaulds** ended 2 harder at 99p, after 100p. **Reliance Knitwear** responded to Press comment with a gain of 2 to 18½p, while **Nottingham Manufacturing** hardened a penny more to 67p following Press comment on the results. **John Haggas** contrasted with a fall of 7 to 325p on the interim report, while **David Dixon** closed 2 easier at 38p on the first-half profits setback. **Carrington Viyella** finished marginally cheaper at 26½p in front of to-day's preliminary figures.

Tobaccos saw a reasonable trade before closing firmly. **Imps** were fractionally harder at 66½p, while **BAT Industries Deferred**, 208p, and **A. Dunhill**, 235p, put on 4 and 5 respectively.

Primrose provided a late dull spot in South African Industrials, closing 6 cheaper at 86p following the reduced first-half profits.

Amax marked down

A feature of mining share markets was the £4½ fall to £36¾ in **Amax** which followed reports of a bearish circular issued by a leading American broker; London's **Selection Trust**, which holds 8.57 per cent. of Amax, 16 to 440p.

Otherwise, mining markets endured a dull trading session. Monday's revival of activity in South African Golds petered out owing to the lack of direction in the bullion price, which finally 50 cents off at $135 per ounce.

Small scattered selling caused shares to drift and falls which extended to a half-point in heavyweights such as **Randfontein**, £20¾ and 10 in the lower-priced issues such as *East D...fontein*, 450p, left the Gold Mines index 0.4 easier at 104.

Western Areas gave up 2 to 124p: access has been gained to the fire that broke out in the mine on January 28 and ventilation seals are being installed.

Financials were mixed. London-registered issues tended to retreat by a penny or so in quiet trading despite the strong recovery of the U.K. Industrial market. Among the South African-based stocks "**Amgold**" and **General Mining** both receded ½ to the common price of £..., but **Rand Selection** improved ... to 375p.

In Coppers, **ZCI** eased ½ more to 20p owing to scattered Continental offerings, while in Platinums **Rustenburg** fell a penny to 79p.

In otherwise dull Australians, ***Bougainville*** *stood out with a* rise to 98p following the strength of the shares in overnight Sydney and Melbourne markets. **MIM Holdings**, however, dropped 7 more to 188p and **Peko-Wallsend** 5 to 560p.

Elsewhere, Canada's **Northgate Exploration** recovered from ... in early trading to close 5 higher on balance at 375p; the company announced a net loss of $0... for 1976.

FINANCIAL TIMES STOCK INDICES

	Feb. 15	Feb. 14	Feb. 11	Feb. 10	Feb. 9	Feb. 8	A year ago
Government Secs.	65.15	64.43	65.90	65.45	66.04	65.87	6[illegible]
Fixed Interest	64.68	64.72	65.57	65.65	66.54	66.60	6[illegible]
Industrial Ordinary	376.1	366.3	381.5	389.7	387.9	392.2	40[illegible]
Gold Mines	106.1	104.5	100.1	102.7	96.4	99.5	10[illegible]
Ord. Div. Yield	6.10	6.25	6.02	5.90	5.94	5.90	[illegible]
Earnings Y'ld % (full)	19.49	19.97	19.23	18.84	18.98	18.86	15[illegible]
P/E Ratio (net) (*)	7.40	7.22	7.49	7.65	7.59	7.62	[illegible]
Dealings marked	7,065	7,590	7,295	6,459	6,904	7,935	6[illegible]
Equity turnover £m.	—	78.18	85.87	66.40	74.96	77.23	[illegible]
Equity bargains total	—	16,328	17,812	14,940	15,162	17,216	15,1[illegible]

10 am 371.5. 11 am 375.6. Noon 376.2. 1 pm 376.4. 2 pm 375.4. 3 pm 376.2.
Latest Index 01-246 8026.
* Based on 52 per cent. corporation tax. Nil=7.34.
Basis 100 Govt. Secs. 15/10/26. Fixed Int. 1928. Ind. Ord. 1/7/35. Gold Mines 12/9/55. SE Activity July-Dec. 1942.

HIGHS AND LOWS

	1976/77 High	1976/77 Low	Since Compilation High	Since Compilation Low
Govt. Secs.	66.45 (10/2/77)	55.86	127.4	49.18
Fixed Int.	65.90	55.37	150.4	50.53
Ind. Ord.	420.8	265.3	549.6	49.4
Gold Mines	246.9 (2/1/76)	78.8	442.3	42.5

S.E. ACTIVITY

	Feb. 15	Feb. 14
Daily—		
Gilt-Edged	222.7	249.[illegible]
Industrials	235.0	258.[illegible]
Speculative	42.5	48.[illegible]
Totals	160.8	172.[illegible]
5-day Av'r'ge—		
Gilt-Edged	230.1	244.[illegible]
Industrials	234.8	259.[illegible]
Speculative	51.0	54.[illegible]
Totals	160.8	164.[illegible]

F.T.—ACTUARIES SHARE INDICES

These indices are the joint compilation of the Financial Times, The Institute of Actuaries and the Faculty of Actuaries

EQUITY GROUPS ‡ — GROUPS & SUB-SECTIONS — Figures in parentheses show number of stocks per section.

Equity groups	Tue Feb 15 Index No.	Day's Change %	Est. Earnings Yield % (Max.) (Corp. Tax 52%)	Gross Div. Yield % (ACT at 35%)	Est. P/E Ratio (Net) (Corp. Tax 52%)	Est. P/E Ratio (Net) (Corp. Tax 35%)	Mon Feb 14	Fri Feb 11	Thur Feb 10	Wed Feb 9	Year ago (approx.)	1976/77 High	1976/77 Low	Since Compilation High	Since Compilation Low
1 (1) CAPITAL GOODS (173)	148.07	+1.1	19.97	6.62	7.40	7.34	144.52	147.25	150.35	150.90	149.82	160.06	100.83	206.57	50.71
2 (2) Building Materials (31)	122.39	+1.2	20.65	8.01	7.14	7.13	120.90	122.51	126.42	127.25	143.20	150.18	83.33	233.84	44.27
3 (3) Contracting, Constructn. (22)	195.74	+0.9	22.58	5.59	6.85	6.83	193.96	196.77	203.09	203.61	235.92	280.60	144.20	385.53	71.48
4 (4) Electricals (16)	287.26	+1.1	17.35	5.05	8.56	8.34	284.27	289.56	295.90	296.95	260.73	307.55	190.58	350.04	84.71
5 (5) Engineering (Heavy) (12)	183.52	+2.3	26.73	7.16	5.40	5.32	179.46	186.12	190.85	191.54	170.53	198.56	136.56	402.57	64.39
6 (6) Engineering (General) (66)	135.90	+1.0	20.02	6.98	7.51	7.29	132.56	135.52	137.35	137.80	153.64	149.29	92.40	168.29	45.43
7 (7) Machine and Other Tools (9)	69.95	+1.4	26.91	8.51	5.65	5.63	68.99	70.48	71.85	72.08	56.84	72.67	38.72	146.70	19.96
8 (8) Miscellaneous (22)	125.86	+0.6	19.62	7.40	7.48	7.41	125.12	126.81	128.53	128.53	130.49	141.94	89.04	177.41	49.65
11 (9) CONSUMER GOODS (DURABLE) (53)	127.98	+1.1	20.40	5.65	7.35	7.34	126.55	129.50	132.61	133.21	133.01	141.46	88.12	227.78	56.59
12 (10) Lt. Electronics, Radio TV (15)	141.16	+1.1	19.35	4.23	7.71	7.70	139.68	142.77	146.82	147.81	149.54	165.35	87.91	257.41	44.85
13 (11) Household Goods (13)	159.57	+0.2	21.51	8.68	7.08	7.05	159.34	162.28	164.80	165.52	179.85	187.22	104.50	263.22	63.92
14 (12) Motors and Distribution (25)	84.61	+1.5	21.54	6.76	6.96	6.96	83.36	85.49	87.18	87.50	79.34	93.13	56.10	170.39	19.91
21 (13) CONSUMER GOODS (NON-DURABLE) (170)	139.32	+1.0	17.60	7.14	8.59	8.51	137.89	140.82	144.33	144.69	157.27	162.24	104.41	226.08	61.41
22 (14) Breweries (13)	145.96	+1.9	17.35	8.23	8.67	8.67	143.23	145.31	152.00	157.12	171.50	179.43	111.17	281.87	69.47
23 (15) Wines and Spirits (6)	157.34	+0.8	16.04	7.20	9.57	9.57	156.15	157.94	161.79	165.75	181.02	190.67	124.71	247.83	78.88
24 (16) Entertainment, Catering (15)	176.02	+1.8	17.99	7.86	8.46	8.44	172.97	176.45	180.75	184.84	201.19	211.46	127.11	249.99	54.83
25 (17) Food Manufacturing (21)	154.07	+1.7	19.09	6.02	7.72	7.60	151.43	155.22	158.15	158.04	166.51	179.44	104.54	211.69	59.67
26 (18) Food Retailing (17)	141.89	+1.4	14.64	5.75	9.88	9.88	139.93	143.27	147.59	149.01	139.57	152.53	92.79	435.08	54.25
32 (19) Newspapers, Publishing (16)	222.53	+2.4	11.65	4.82	13.01	13.01	217.40	219.22	222.64	216.23	179.56	222.64	148.46	460.29	55.08
33 (20) Packaging and Paper (12)	98.05	+1.1	18.52	8.22	8.28	8.28	97.03	98.87	101.89	102.72	108.30	112.50	72.54	185.69	43.46
34 (21) Stores (35)	114.75	+0.1	13.51	6.23	11.42	11.41	114.61	115.89	118.24	117.31	133.44	136.34	78.47	204.59	52.63
35 (22) Textiles (24)	133.39	+0.6	15.31	8.89	10.26	9.32	132.56	135.09	158.50	157.66	177.99	185.20	96.75	335.72	62.29
36 (23) Tobaccos (3)	192.50	+0.6	27.77	9.34	5.49	5.49	191.41	200.47	205.50	204.61	224.59	241.89	167.56	339.16	94.54
37 (24) Toys and Games (6)	60.57	+0.4	20.55	7.87	6.53	6.50	60.26	62.73	62.85	62.52	64.54	87.55	59.15	135.72	20.92
41 OTHER GROUPS (95)															
42 (25) Chemicals (26)	205.42	+0.4	16.10	5.63	8.50	8.50	204.70	209.35	214.65	212.88	215.55	231.38	155.10	231.38	71.20
44 (26) Office Equipment (8)	87.79	+0.2	18.09	6.44	7.83	7.63	87.61	88.50	91.29	90.70	87.63	100.13	58.33	246.06	45.34
45 (27) Shipping (10)	431.23	+1.3	12.52	6.13	11.45	10.44	425.87	429.14	438.42	437.57	400.60	455.80	308.48	517.00	90.80
46 (28) Miscellaneous (31)	146.92	+1.0	17.74	8.10	8.46	8.46	145.44	148.75	153.36	155.19	167.02	172.98	108.13	214.58	60.39
49 (29) INDUSTRIAL GROUP (496)	147.69	+0.9	18.02	6.75	8.20	8.13	146.32	149.54	153.05	155.10	159.45	166.38	107.52	220.17	59.01
51 (30) Oils (4)	479.54	+1.2	8.88	3.65	15.04	12.00	473.91	486.54	492.11	484.56	338.90	497.37	315.67	497.37	87.23
59 (31) 500 SHARE INDEX	173.96	+1.0	16.16	6.10	8.87	8.71	172.27	176.02	179.90	179.41	174.12	186.25	120.80	227.95	63.49
61 (32) FINANCIAL GROUP (100)	123.04	+2.1	—	6.41	—	—	120.49	122.92	125.98	124.79	142.93	155.46	87.19	241.41	55.88
62 (33) Banks (6)	145.16	+5.0	23.63	6.46	6.51	6.51	135.36	142.28	148.41	144.32	172.44	196.16	109.11	351.60	62.44
63 (34) Discount Houses (10)	151.40	+2.5	—	8.23	—	—	147.94	154.08	156.11	157.58	178.65	186.63	97.72	293.13	[illegible]
64 (35) Hire Purchase (5)	108.02	+1.0	7.29	6.27	29.45	29.45	106.94	110.71	114.06	112.85	123.38	132.10	53.25	433.74	38.83
65 (36) Insurance (Life) (10)	104.14	−0.1	—	7.26	—	—	104.22	105.27	107.25	107.27	125.23	129.46	75.11	194.46	44.88
66 (37) Insurance (Composite) (7)	98.78	+1.6	—	7.48	—	—	97.24	97.26	99.78	97.63	110.59	119.75	66.99	155.76	43.96
67 (38) Insurance Brokers (10)	247.81	+0.9	12.40	5.53	12.04	12.04	245.59	246.91	252.54	252.61	220.63	276.90	178.27	276.90	65.86
68 (39) Merchant Banks (15)	61.28	−0.2	—	6.92	—	—	61.43	62.90	65.07	64.91	90.43	95.25	54.21	173.80	31.21
69 (40) Property (31)	156.88	+1.2	4.57	3.55	35.53	33.99	157.07	160.74	166.50	164.62	134.18	190.47	95.95	371.64	56.01
70 (41) Miscellaneous (6)	79.87	+1.4	18.88	10.79	8.19	8.19	78.80	81.43	82.94	81.39	88.32	91.98	55.57	303.18	33.29
71 (42) Investment Trusts (50)	157.98	+0.5	3.41	4.88	30.26	30.26	157.27	161.34	164.12	166.72	172.21	184.33	[illegible]	[illegible]	[illegible]
81 (43) Mining Finance (4)	83.60	−1.6	12.66	6.06	10.02	9.80	84.85	85.85	86.69	86.25	88.60	99.76	77.52	175.90	66.31
91 (44) Overseas Traders (17)	229.93	+0.1	18.52	6.53	7.57	7.52	229.63	234.02	236.30	236.76	253.72	254.47	178.31	254.47	97.37
99 (45) ALL-SHARE INDEX (671)	161.01	+1.1	—	6.10	—	—	159.31	162.73	166.27	165.81	166.31	177.64	116.29	228.18	61.92

FIXED INTEREST	Tuesday Feb. 15 Index No.	Yield %	Monday Feb. 14	Friday Feb. 11	Thurs. Feb. 10	Wed. Feb. 9	Tuesday Feb. 8	Monday Feb. 7	Friday Feb. 4	Year ago (approx.)	1976-77 High	1976-77 Low	Since Compilation High	Since Compilation Low
1 Consols 2½% yield	—	13.54	13.82	13.54	13.85	13.33	13.33	13.32	13.22	13.55	—	—	—	—
2 20-yr. Govt. Stocks (6)	50.57	12.88	50.00	51.51	52.10	51.67	51.55	51.45	51.76	51.49	55.45	42.31	116.42	38.27
3 20-yr. Red. Deb. & Loans (15)	50.26	14.71	50.33	50.87	50.53	50.94	50.93	50.96	50.66	50.83	57.25	45.31	114.65	[illegible]
4 Investment Trust Prefs. (15)	49.96	13.92	49.96	50.21	50.12	50.24	49.87	49.87	49.74	50.85	51.70	40.54	114.24	[illegible]
5 Coml. and Indl. Prefs. (20)	67.88	13.50	67.68	68.93	68.95	69.04	69.00	69.04	68.87	69.07	71.95	54.89	114.96	47.67

† Redemption yield. FT-Actuaries indices are calculated by Exchange Telegraph Company Limited (a member of the Exchange Telegraph Group) on an IBM 370 computer. A record of the indices, cost ... is obtainable from FT Business Enterprises, 10, Bolt Court, London, EC4. It gives all groups and sub-section indices at fortnightly intervals since the start of the series in 1962 with quarterly highs and lows. Dividend and earnings figures are also included. ‡ A new numbering system is introduced to the display. The numbering shown in parentheses on the left will, after a few weeks, be dispensed with in favour of the staggered system shown on the extreme left. CONSTITUENT CHANGE: Atlantic Shipping (Shipping) has been replaced by Stockley (Miscellaneous Industrial). NAME CHANGE: International Computers has changed its name to ICL Ltd.

ACTIVE STOCKS

Stock	Denomination	No. of marks	Closing price (p)	Change on day	1976-77 high	1976-77 low
ICI	£1	17	330	+4	402	236
Burmah	£1	14	70	+4	90	23
Shell Transport	25p	14	496	+6	524	332
Barclays Bank	£1	13	247	+12	350	190
BP	£1	12	914	+10	930	557
Grand Met.	50p	11	67	+3	85	41
Unilever	25p	11	424	+14	500	346
BATs Defd.	25p	10	208	+4	243	183
Commercial Union	25p	10	112	+5	138	75
Courtaulds	25p	10	99	+2	169	73
EMI	50p	10	204	+3	277	173
Lucas Inds.	£1	10	222	+7	250	128
Marks & Spencer	25p	10	97	+1	108	70
Thorn Elec. "A"	25p	10	224	+2	288	134

The above list of active stocks is based on the number of bargains recorded yesterday in the Official List and under Rule 163(1) (e).

NEW HIGHS AND LOWS FOR 1976/77

The following securities quoted in the Share Information Service yesterday attained new Highs and Lows for 1976-77.

NEW HIGHS (23)

CORPORATION LOANS (1): Middx. 5½pc 1980
ELECTRICALS (1): Reed and Mallik
ENGINEERING (3): Muirhead; Elliott (B.); Harris (H.); Root Harvesters
FOODS (2): Barr (A. G.); Bibby (J.)
INDUSTRIALS (7): BB and EA; Croydex; De La Rue; Drew Grp.; Sale Tilney; Watsham's
NEWSPAPERS (2): Assoc. News.; Daily Mail A
TEXTILES (1): Trafford Carpets
TRUSTS (2): Kakuzi; Park Place Inv.
OVERSEAS TRADERS (1): Steel Bros.
TEAS (2): Assam Invs.; Jokai

NEW LOWS (6)

BANKS (1): Bank NSW
HOTELS (1): Borel (J.)
SOUTH AFRICANS (1): Greatermans A
TEXTILES (1): Worth (Bond)
TRUSTS (1): Trans. Market Tst.
MINES (1): S.A. Land

OPTIONS TRADED

DEALING DATES

First Deal-ings	Last Deal-ings	Last Declara-tion	For Settle-ment
Feb. 8	Feb. 21	May 5	May 17
Feb. 22	Mar. 7	May 19	May 31
Mar. 8	Mar. 21	Jun. 9	Jun. 21

For rate indications see end of Share Information Service.

Calls were dealt in Ladbroke, Berry Wiggins, Barclays Bank, Burmah Oil, Lennons, Imps, London and Northern, Marievale, P & O Deferred, Brent Chemical, Waterford Glass, Newman Industries, Thomson Organisation, Guest Keen, ICI, Tricentrol, Courtaulds, British Land, Invergordon, Town and City and J. Lyons. Puts were done in BAT Industries, ICI, Beecham, Barratt Developments and Cavenham, while doubles were arranged in Charterhall Finance, Dunlop, Burmah Oil, Thomson Organisation, ICI and Beecham. A short-dated double was taken out in ICL.

RISES AND FALLS

	Up	Down	Same
British Funds	62	0	8
Corpns. Dom. & Foreign Bonds	6	15	31
Industrials	[illegible]	[illegible]	[illegible]
Financial and Prop.	177	[illegible]	[illegible]
Oils	[illegible]	[illegible]	[illegible]
Plantation	[illegible]	[illegible]	[illegible]
Mines	[illegible]	[illegible]	[illegible]
Recent Issues	3	6	[illegible]
Totals	[illegible]	[illegible]	[illegible]

MONEY MARKET

Interest rates decline

Bank of England Minimum Lending Rate 12 per cent. (since February 3, 1977)

Short-term fixed period interest rates declined quite sharply in the London money market yesterday. Market sentiment appeared to indicate that any further fall in Bank of England Minimum Lending Rate is unlikely in the near future, and lenders of funds tended to concentrate business on the shorter end of the market, leading to fairly sharp falls in periods of up to three months. The one-month sterling certificate of deposit fell to 11⅜-11½ per cent. from 12⅛-11⅞ per cent., while in the interbank market one-week money opened at 11⅞-12 per cent. and closed at 11⅜-11⅝ per cent.

A general improvement in the supply of day-to-day funds may also have contributed to the decline in rates, and yesterday was the first day since December that the authorities did not make loans available to the discount houses.

Day-to-day credit was only slightly short in supply, and although a large amount of help was given to the market this may have been somewhat overdone, leading to suggestions that banks may be carrying over surplus balances. The authorities gave assistance by buying a small amount of corporation bills and eligible bank bills, and a large number of Treasury bills from the houses and banks.

Bank balances were well up at the start of trading yesterday and the houses were also helped by an excess of Government disbursements over revenue payments to the Exchequer. On the other hand repayment was made of Monday's official advance to the market.

Discount houses paid 12 per cent. for secured call loans in the early part and closing balances were taken at 7-10 per cent. In the interbank market overnight loans opened at 11⅜-11½ per cent. and declined to 5 per cent. at the close.

Rates in the table below are nominal in some cases.

Feb. 15 1977	Sterling Certificate of deposit	Interbank	Local Authority deposits	Local Auth. negotiable bonds	Finance House Deposits	Company deposits	Discount market deposit	Treasury Bills ⊕	Eligible Bank Bills ⊕	Fine Trade Bills ⊕
Overnight	—	5-11⅞	—	—	—	12¼	[illegible]	—	—	—
2 days notice	—	—	12-12¼	—	—	—	—	—	—	—
7 days or 7 days notice	—	[illegible]	[illegible]	—	[illegible]	[illegible]	[illegible]	—	—	—
One month	11⅜-11½	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Two months	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Three months	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Six months	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	—	—	—	[illegible]
Nine months	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	—	—	—	—	—
One year	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	—	—	—	—	—
Two years	—	—	[illegible]	—	—	—	—	—	—	—

Local authority and finance houses seven days' notice, others seven days' fixed. Longer-term local authority mortgage rates nominally three years 13½-14 per cent.; four years 14-14½ per cent.; five years 14-14½ per cent. ⊕ Bank bill rates in table are buying rates for prime paper. Buying rates for four-month bank bills 11⅝ per cent.; four-month trade bills 12¾ per cent. Approximate selling rate for one-month Treasury bills 10⅞ per cent.; and three-month 11-11⅛ per cent. Approximate selling rate for one-month bank bills 11⅝-11⅛ per cent.; two-month 11⅝ per cent.; and three-month 11⅝-11½ per cent.; one-month trade bills 13 per cent.; two-month 12⅞ per cent.; and three-month 12¾ per cent. Finance House Base Rates (published by the Finance Houses Association) 14½ per cent. from February 1, 1977. Clearing Bank Deposit Rates for small sums at seven days' notice 8 per cent. Clearing Bank Base Rates for lending 12½ per cent. Treasury Bills: Average tender rates of discount 11.1606 per cent.

BASE LENDING RATES

A.B.N. Bank 12½%
Allied Irish Banks Ltd. 12½%
American Express Bank 13%
Anglo-Portuguese Bank 12½%
Henry Ansbacher 13%
Banco de Bilbao 12½%
Bank of Credit & Cmce. 12½%
Bank of Cyprus 12½%
Bank of N.S.W. 12½%
Banque du Rhone S.A. 13%
Barclays Bank 12½%
Barnett Christie Ltd. 14%
Bremar Holdings Ltd. 13%
Brit. Bank of Mid. East 12½%
■ Brown Shipley 13%
Canada Permanent AFI 12½%
Capitol C & C Fin. Ltd. 14%
Cayzer Ltd. 12½%
Cedar Holdings 12½%
■ Charterhouse Japhet 12½%
C. E. Coates 13%
Consolidated Credits 12½%
Co-operative Bank 12½%
Corinthian Securities 12½%
Credit Lyonnais 12½%
G. R. Dawes 13%
Duncan Lawrie 12½%
Eagil Trust 12½%
English Transcont. 13%
First London Secs. 12½%
First Nat. Fin. Corp. 16%
First Nat. Secs. Ltd. 16%
Goode Durrant Trust 13%
■ Antony Gibbs 12½%
Greyhound Guaranty 12½%
Grindlays Bank 12½%
■ Guinness Mahon 12½%
■ Hambros Bank 12½%
■ Hill Samuel 12½%
C. Hoare & Co. 12½%
Julian S. Hodge 13½%
Hongkong & Shanghai 12½%
Industrial Bank of Scot. 12½%
Keyser Ullman 13%
Knowsley & Co. Ltd. 14%
Lloyds Bank 12½%
London & European 13%
London Mercantile 12½%
Midland Bank 12½%
■ Samuel Montagu 12½%
■ Morgan Grenfell 12½%
National Westminster 12½%
Norwich General Trust 12½%
P. S. Refson & Co. 12½%
Rossminster Accept'cs 12½%
Royal Bk. Canada Trust 12½%
Schlesinger Limited 12½%
E. S. Schwab 13½%
Security Trust Co. Ltd. 14%
Shenley Trust 14%
Standard Chartered 12½%
Trade Development Bk. 12½%
Twentieth Century Bk. 13%
United Bank of Kuwait 12½%
Whiteaway Laidlaw 13%
Williams & Glyn's 12½%
Yorkshire Bank 12½%

■ Members of the Accepting Houses Committee.
* 7-day deposits 9%, 1-month deposits ...%.
† 7-day deposits on sums of £10,000 and under 9%, up to £25,000 9½% and over £25,000 10%.
‡ Call deposits over £1,000 9%.
§ Demand deposits 10%.

CORAL INDEX: Close 374-379

INSURANCE BASE RATES

† Property Growth 13...%
Cannon Insurance ...
† Address shown under Insurance and Property Bond table.

AUTHORISED UNIT TRUSTS

INSURANCE, PROPERTY, BONDS

OFFSHORE AND OVERSEAS FUNDS

[CO]MPANY NOTICES

S.A. ANDRE CITROEN

1967-73-82 $6\frac{3}{4}$%

Loan of $US20,000,000

The redemption on 15th March, 1977, for which a sum of [...],902,000 is planned, has been entirely repurchased on the Stock [Exch]ange.

Amount remaining in circulation after 15th March, 1977: [...]1,618,000.

Paying Agent
BANQUE DE PARIS ET DES PAYS-BAS
POUR LE GRAND-DUCHE DE LUXEMBOURG

MARUI CO. LTD.
(Kabushiki Kaisha Marui)

[Hold]ers of 6½ per cent. Convertible [...] 1991 of the above Company are notified in accordance with Con[ditions] 5 (C) (i) and 5 (C) (ii) of the [...] that the conversion price has [been a]djusted from Yen 1.037 to Yen [...] per share of Yen 50 with effect [...]st February, 1977, as a result of [a f]ree share distribution to the [...]s of Record as of 31st January, [...] at the rate of 0.1 new share [...]e share held.
[MARU]I CO. LTD.,
[Ci]tibank, N.A.
[...] and Conversion Agent.
[Febru]ary 1, 1977.

IMPERIAL GROUP LIMITED

NOTICE IS HEREBY GIVEN that the Transfer Books of the Ordinary Shares of 25p each of Imperial Group Limited will be closed for one day only on 2nd March, 1977, and that warrants in respect of the final dividend for the year ended 31st October, 1976, will be posted on 29th March, 1977, for payment on 1st April, 1977, to Ordinary Shareholders on the Register at the close of business on 1st March, 1977.

By Order.
P. M. DAVIES, Secretary.

London.
16th February, 1977

FT SHARE INFORMATION SERVICE

**BRITISH FUNDS

"Shorts" (Lives up to Five Years)

1976/7 High	Low	Stock	£	+ or −	Yield Int.	Yield Red.
103	97	Treasury 11½pc '77‡‡	99	+⅛	11.51	11.57
95¼	91	Treasury 3pc '77‡‡	95	+⅛	3.16	10.09
96	92¼	Transport 4pc '72-77	95¾	−⅛	4.18	9.33
99	90½	Treasury 9pc 1978‡‡	97xd	+⅛	9.23	11.30
101	95	Treasury 10pc '78‡‡	93⅞	+⅛	10.62	11.58
95¼	89	Exch 5pc '76-78	94⅓	+⅛	5.30	8.82
103	92	Treasury 11½pc '79‡‡	99xd	+⅛	11.60	12.00
91	82¼	Treasury 3pc '79‡‡	90xd	+⅛	3.32	7.13
91	82¼	Electric 4pc '74-79	90⅝	+⅛	4.69	8.29
100	86	Treasury 10½pc '79‡‡	96⅝	+¼	10.87	11.95
90	82¼	Electric 3½pc '76-79	89¼	+½	3.92	7.92
96	84	Treasury 9pc 1980‡‡	95xd	+¼	9.41	10.73
96	84	Treasury 9½pc '80‡‡	93	+¼	10.12	11.82
89¼	76	Treasury 3½pc '77-80	88¼	+½	3.97	7.55
90	80	Funding 5½pc '78-80‡‡	89½	+½	5.87	8.96
103	96	Exchequer 13pc 1980‡‡	102	+½	12.74	12.30
103	89½	Treasury 11½pc 1981‡‡	98	+⅛	11.63	11.86
85	76¼	Treasury 3½pc 1979-81	84¼xd	+¼	4.15	8.20
95	82	Treasury 9¾pc 1981‡‡	95	+½	10.39	11.65
103	96	Exch. 12¼pc 1981‡‡	101	+⅛	12.57	12.31
94	79	Treasury 8¼pc '80-82‡‡	92	+¼	9.19	10.48
80	69¾	Treasury 3pc '82‡‡	79	+½	3.76	7.96

Five to Fifteen Years

Over Fifteen Years

Undated

**INTERNATIONAL BANK

**CORPORATION LOANS

COMMONWEALTH & AFRICAN LOANS

LOANS (Miscel.)

FOREIGN BONDS & RAILS

U.S. $ & DM prices exclude inv. $ premium

AMERICANS

S.E. List Premium 31¼% (based on $US1.7010 per £)

Conversion factor 0.7604 (0.7613)

CANADIANS

1976/7 High	Low	Stock	£	+ or −	Div. Gross	Cvr	Y'ld Gr's
14¾	10	Bk Montreal $2	10	.....	$1.00	—	5.7
20¼	14½	Bk Nova Scotia $1	15	+⅛	86c	—	3.4
46¼	33¼	Bell Canada 25c	36	+½	$3.72	—	6.1
23⅝	12	Bow Valley‖	17⅛	+⅛	10c	—	0.3
10⅛	780p	Brascan‖	900p	+15	10⅛	—	6.5
29	18	Can Imp Bk $2	18¾	−	$1.40	—	4.4
16⅞	10⅝	Can Pacific $5	12⅝	+	80c	—	4.0
29⅝	25	Do. 4pc Deb. £100	29⅛	−⅛	4%	—	13.8
37⅞	17½	Gulf Oil Can.‖	20¼	+⅛	$1.06	—	3.1
670p	340p	Hawker Sid. Can.‖	360p	−10	36c	—	5.9
33	20¼	Hollinger $5	21	−½	$1.94	—	6.7
18	10⅞	Hudson's Bay‖	12	−	60c	—	2.9
34⅓	25½	Hud B Oil G $2½	27	.....	$1.52	—	0.1
22¼	15	Imperial Oil‖	17⅝	+⅛	86.4c	—	2.9
31½	19½	Inco	24⅛	+¼	$1.60	—	3.9
920p	660p	Int. Nat. Gas $1	780p	+15	80c	—	6.0
25½	14¾	Massey Ferg.‖	14¾	−½	$1.00	—	4.0
27⅝	20¼	Pacific Pet. $1	21⅝	−¼	86.4c	—	2.4
42p	24p	Place Gas $1	35½p	.....	—	—	—
30¾	20¼	Rio Algom	20	−⅛	$1.00	—	2.9
27¼	17⅞	Royal Bk. Can. $2	18⅞	+	$1.38	—	4.3
28	16	Seagram Co. C$1	18	+⅛	86.4c	—	2.8
18	12¾	Tor. Dom Bk. $1	13	+⅛	76c	—	3.3
11⅛	830p	Trans Can. Pipe 3⅝c	980	−20	95c	—	1.5

S.E. List Premium 31¼% (based on $1.7435 per £)

BANKS AND HIRE PURCHASE

1976/7 High	Low	Stock	Price	+ or −	Div Net	Cvr	Y'ld Gr's	P/E
390	250	ANZ $A1	260	.....	†Q18c	—	4.3	—
250	125	Alexanders D. £1	190xd	+10	12.83	—	10.4	—
£110	£80	Algemene Fl.100	£98	.....	†Q21%	2.6	5.3	10.1
490	235	Allen Harvey £1	390	+10	25.0	—	9.9	—
128	76	Allied Irish	108	.....	†Q6.89	—	6.4	—
195	90	Arbuthnot L. £1	115	−5	8.28	—	11.4	—

Hire Purchase, etc.

BEERS, WINES AND SPIRITS

BUILDING INDUSTRY, TIMBER AND ROADS

BUILDING INDUSTRY—Continued

CHEMICALS, PLASTICS

CINEMAS, THEATRES AND TV

DRAPERY AND STORES

DRAPERY AND STORES—Continued

ELECTRICAL AND RADIO

ENGINEERING, MACHINE TOOLS

ENGINEERING—Continued

FOOD, GROCERIES, ETC.

HOTELS AND CATERERS

INDUSTRIALS (Miscel.)

INDUSTRIALS—Continued

INDUSTRIALS—Continued

[illegible]

MOTORS, AIRCRAFT TRADES

Motors and Cycles

[illegible]

Commercial Vehicle

[illegible]

Components

[illegible]

Garages and Distributors

[illegible]

NEWSPAPERS, PUBLISHERS

[illegible]

PAPER, PRINTING, ADVERTISING

[illegible]

PROPERTY

[illegible]

INSURANCE

[illegible]

PROPERTY—Continued

[illegible]

SHIPBUILDERS, REPAIRERS

[illegible]

SHIPPING

[illegible]

SHOES AND LEATHER

[illegible]

SOUTH AFRICANS

[illegible]

TEXTILES

[illegible]

TOBACCOS

[illegible]

TRUSTS, FINANCE, LAND

Investment Trusts

[illegible]

TRUSTS—Continued

[illegible]

Finance, Land, etc.

[illegible]

OILS

[illegible]

OVERSEAS TRADERS

[illegible]

RUBBERS AND SISALS

[illegible]

TEAS

India and Bangladesh

[illegible]

Sri Lanka

[illegible]

Africa

[illegible]

MINES

CENTRAL RAND

[illegible]

EASTERN RAND

[illegible]

FAR WEST RAND

[illegible]

O.F.S.

[illegible]

FINANCE

[illegible]

DIAMOND AND PLATINUM

[illegible]

MINES—Continued

CENTRAL AFRICAN

[illegible]

AUSTRALIAN

[illegible]

TINS

[illegible]

COPPER

1976/77 High	Low	Stock	Price	+ or −	Div Net	Cvr	Yld Gr's
85	35	Botswana RST R2	36	......	—	—	—
335	136	Messina R0.50	154	......	Q45c	2.8	21.1

MISCELLANEOUS

1976/77 High	Low	Stock	Price	+ or −	Div Net	Cvr	Yld Gr's
10	8	Burma Mines 17½p	9	......	0.1	ϕ	1.8
35½	15½	Charterhall 5p	25½	......	—	—	—
90	28	Colby Mines $1	65	......	—	—	—
990	420	Cons. Murch. 10c	440	......	Q140c	ϕ	23.0
440	245	Northgate C$1	375	+5	—	—	—
239	132	R.T.Z.	176	−1	g5.96	2.1	5.2
112	55	Sabina Inds. C$1	57½	+2½	—	—	—
£15⅞	£10	Tara Exptn. $1	£11½	−⅛	—	—	—
48	32½	Tehidy Minerals 10p	43	......	t1.19	2.2	4.3
145	84	Yukon Cons. C$1	125	......	—	—	—

NOTES

Unless otherwise indicated, prices and net dividends are in pence and denominations are 25p. Estimated price/earnings ratios and covers are based on latest annual reports and accounts and, where possible, are updated on half-yearly figures; they are adjusted to ACT of 35 per cent. P/Es are calculated on the basis of net distribution; bracketed figures indicate 10 per cent. or more difference if calculated on "nil" distribution. Covers are based on "maximum" distribution. Yields are based on middle prices, are gross and allow for value of declared distributions and rights. Securities with denominations other than sterling are quoted inclusive of the investment dollar premium.

- Δ Sterling denominated securities which include investment dollar premium.
- ● "Tap" Stock.
- * Highs and Lows marked thus have been adjusted to allow for rights issues for cash.
- † Interim since increased or resumed.
- ‡ Interim since reduced, passed or deferred.
- ‡‡ Tax-free to non-residents.
- ϕ Figures or report awaited.
- †† Unlisted security.
- ¢ Price at time of suspension.
- ¶ Indicated dividend after pending scrip and/or rights issue; cover relates to previous dividend or forecast.
- ** Free of Stamp Duty.
- ♦ Merger bid or reorganisation in progress.
- ♣ Not comparable.
- ♠ Same interim, reduced final and/or reduced earnings indicated.
- § Forecast dividend; cover on earnings updated by latest interim statement.
- ‡ Cover allows for conversion of shares not now ranking for dividends or ranking only for restricted dividend.
- ★ Cover does not allow for shares which may also rank for dividend at a future date. No P/E ratio usually provided.
- ♥ Excluding a final dividend declaration.
- ✚ Regional price.
- ‖ No par value

a Tax free. b Figures based on prospectus or other official estimate. c Cents. d Dividend rate paid or payable on part of capital; cover based on dividend on full capital. e Redemption yield. f Flat yield. g Assumed dividend and yield. h Assumed dividend and yield after scrip issue. j Payment from capital sources. k Kenya. m Interim higher than previous total. n Rights issue pending. q Earnings based on preliminary figures. r Australian currency. s Dividend and yield exclude a special payment. t Indicated dividend: cover relates to previous dividend, P/E ratio based on latest annual earnings. u Forecast dividend: cover based on previous year's earnings. v Tax free up to 30p in the £. w Yield allows for currency clause. y Dividend and yield based on merger terms. z Dividend and yield include a special payment. Cover does not apply to special payment. A Net dividend and yield. B Preference dividend passed or deferred. C Canadian. E Issue price. F Dividend and yield based on prospectus or other official estimates for 1977-78. G Assumed dividend and yield after pending scrip and/or rights issue. H Dividend and yield based on prospectus or other official estimates for 1976-77. K Figures based on prospectus or other official estimates for 1976-77. M Figures based on prospectus or other official estimates for 1978. N Dividend and yield based on prospectus or other official estimates for 1978. P Dividend and yield based on prospectus or other official estimates for 1977. Q Gross. T Figures assumed. U No significant Corporation Tax payable. Z Dividend total to date.

Abbreviations: ex dividend; ex scrip issue; ex rights; ex all; ex capital distribution.

"Recent Issues" and "Rights" Page 33

This service is available to every Company dealt in on Stock Exchanges throughout the United Kingdom for a fee of £325 per annum for each security

REGIONAL MARKETS

The following is a selection of *London* quotations of shares previously listed only in regional markets. Prices of Irish issues, most of which are not officially listed in London, are as quoted on the Irish exchange.

Stock	Price	+ or −
Albany Inv. 20p	18	......
Ash Spinning	34	......
Bertam	16	......
Bdg'wtr. Est. 50p	137	−1
Clover Croft	21	......
Craig & Rose £1	360	......
Dyson (R.A.)	23	......
Ellis & McHdy	59	......
Evans Fr'k.10p	25	......
Evered	7½	......
Fife Forge	49	......
Finlay Pkg. 5p	16	......
Graig Ship. £1	315	......
Hallam Sleigh 10p	9½	......
Higsons Brew	80	......
I.O.M. Stm. £1	133	......
Holt (Jos.) 25p	200	......
Kleen-e-Ze	42	......
Lovell's Ship £1	180	......
N'thn. Goldsmith	26	......
Pearce (C. H.)	80	......
Peel Mills	14	......
Robb Caledon 5p	35	......
Sayers 12½p	16	......
Sheffield Brick	78	......
Shefl. Refrshmt.	140	......
Shiloh Spinn	21	−1
Sindall (Wm.)	49	......

IRISH

Stock	Price	+ or −
Conv. 9% '80/82	£86½d	......
Alliance Gas	47	+2
Arnott	230	......
Carroll (P.J.)	135	......
Clondalkin	35	−1
Concrete Prods.	73	−2
Heiton (Hldgs.)	25xd	......
Ind. News	44	......
Ins. Corp.	130	......
Irish Distillers	58	......
Irish Ropes	105	......
Jacob	44	−2
Sunbeam	16½	......
T.M.G.	108	......
Unidare	50	......

OPTIONS

3-month Call rates

Industrials					
A. Brew	6½	Hawker Sidd.	40	Tube Invest.	30
A.P. Cement	18	House of Fraser	8	Unilever	40
B.S.R.	10	I.C.I.	25	Utd. Drapery	7½
Babcock	8	"Imps"	7	Vickers	15
Barclays Bank	25	I.C.L.	14	Woolworths	6
Berry Wiggins	5	Inveresk	7	**Property**	
Beecham	32	Ladbroke	11	Brit. Land	3½
Boots Drug	12	Legal & Gen.	12	Cap. Counties	3
Bowaters	16	Lex Service	5	E.P.	5
B.A.T.	21	Lloyds Bank	22	Intreuropean	7
British Oxygen	6	"Lofs"	5	Land Secs.	14
Brown (J.)	17	London Brick	5	MEPC	7
Burton 'A'	6	Lonrho	8	Peachey	6
Cadburys	5	Lucas Inds.	20	Samuel Props.	4½
Cavenham	10	"Mams"	7	Town & City	1½
Courtaulds	10	Mrks & Spncr	10	**Oils**	
Debenhams	8	Midland Bank	25	Brit. Petroleum	60
Distillers	13	Nat. West. Bank	22	Burmah Oil	8
Dunlop	8½	Do. Warrants	9	Shell	20
Eagle Star	11	P & O Dfd.	12	Ultramar	14
E.M.I.	20	Plessey	7	**Mines**	
Gen. Accident	17	R.H.M.	5	Charter Cons.	15
Gen. Electric	17	Rank Org. 'A'	18	Charterhall F'n.	4
Glaxo	36	Reed Intl.	20	Cons. Gold	15
Grand Met.	7	Reyrolle	12	Rio T. Zinc	18
G.U.S. 'A'	18	Spillers	4		
Guardian	18	Tesco	4		
G.K.N.	25	Thorn 'A'	22		
		Trust Houses	13		

A selection of Options traded is given on the London Stock Exchange Report page

FINANCIAL TIMES
Wednesday February 16 1977

German nuclear rally banned

BY NICHOLAS COLCHESTER

BONN, Feb. 15.

THE DEMONSTRATION planned for Saturday against the atomic power station at Brokdorf, the focus of West German protest against nuclear power, was banned to-day by the local authorities in the State of Schleswig-Holstein. The move illustrates the tension surrounding this matter.

The authorities have used their powers to ban an open-air meeting if it is held to threaten public order. They infer such a threat from the inflammatory tone used by extreme political groups in rallying support for the demonstration, and from the fact that two demonstrations at Brokdorf late last year resulted in injury and damage.

The aim of the conservative Schleswig-Holstein Government is clearly to steer all reasonable demonstrators against the power station to the peaceful demonstration at the nearby village of Itehoe, on the Elbe estuary, and brand as illegal any "hardcore" that insists on going to Brokdorf and attempting to occupy the site.

Whether this tactic succeeds will be a measure of the political will that really lies behind this anti-atomic power movement.

During the demonstrations in the late 1960s, such bans tended to raise rather than lower the temperature. If demonstrators still try to occupy Brokdorf on Saturday, the struggle could be ugly indeed.

The site resembles a small fortress. Police from all parts of West Germany will be on standby to defend it. The Federal Border Guard has been put on standby as well.

Work at Brokdorf Power Station has been banned since mid-December by the courts, creating a legal precedent that has effectively brought the West German nuclear programme to a halt.

This ban has split opposition to the station into two broad groups, one that wishes to show its worry about nuclear power and the environment in an orderly way; and another, more militant, faction clearly adopted as a suitable vehicle by extreme Left political groups.

The nuclear debate is now so shot through with political emotion that Bonn may find it difficult to make progress on its entire energy programme until the ardour has cooled.

Herr Hans Friderichs, the Economics Minister, plans to present the basic elements of a revised energy plan at the end of March. These are expected to restate his Government's conviction that West Germany cannot do without more nuclear power.

Yet an influential Social Democrat, Herr Volker Hauff, Secretary of State in the Technology Ministry, suggested to-day that the nuclear question must be thrashed out further within and between the political parties before the Government's conviction is embodied in a new energy programme.

On the other hand, the conservative Opposition demanded to-day that Chancellor Helmut Schmidt restate clearly his attitude towards atomic power.

Krupp confirms oil barter with Iran

BY ADRIAN DICKS

BONN, Feb. 15.

FRIEDRICH KRUPP, the West German steel and engineering group, confirmed to-day that it has concluded a major barter deal with Iran for crude oil in exchange for manufactured goods.

In a brief statement in response to Press reports, Krupp gave no details of what it would sell to the Iranians in exchange for the oil, what price had been set on it, or who would repurchase it from Krupp.

The statement acknowledged that a third party was agreed upon as the ultimate buyer of the crude.

Though Krupp would not comment on this, Petrofina group of Belgium has acknowledged that it is the third party in question.

Krupp declined to say how much crude would be involved. It was reliably learned here that the deal would amount to 4.5m. tons—worth rather more than $400m. at current prices, if one assumes a 50-50 split between Iranian light and heavy crude.

The deal, said Krupp, had no connection with the Iranian Government's purchase last October of a 25.01 per cent. stake in the Krupp holding company, Fried. Krupp GmbH., which in turn followed Iranian purchases of substantial minority holdings in Krupp Hütten Werke and two Brazilian subsidiaries.

The second deal, the German company said to-day, was being paid for in cash.

From Krupp's point of view the barter deal indicates that it is likely to reap large orders as a result of the Iranian shareholding.

To-day's statement said only that its position in this respect would be "facilitated," and not that it had actually been awarded concrete orders in exchange for the oil.

● Our Foreign Staff writes: Krupp's oil barter deal with Iran is believed to be related to equipping the smaller refinery planned for the Sar Cheshmeh copper mines. Involved in the negotiations with Krupp's has been Mechin, a subsidiary of the Belgian-owned Union Minière, which is expected to supply know-how, design and engineering for the project.

Mechin may also have provided the vital link with Petrofina. In Brussels, a spokesman for the Belgian company confirmed that it would buy 4.5m. tons of Iranian crude from Krupp.

Petrofina, Belgium's only big oil company, with subsidiaries in eight European countries, including West Germany and the U.K., has few direct sources of crude. Although now involved in the North Sea, it still depends on British Petroleum for 40 per cent. of its crude.

The problem here is that its long-term contract with BP gives Petrofina a diminishing amount of crude each year. It has therefore been anxious to establish direct links with the oil-producing States.

Examiners to give verdict to-morrow on ships Bill

BY RUPERT CORNWELL, LOBBY STAFF

THE PARLIAMENTARY examiners will give their long-awaited verdict to-morrow morning on whether the Government's bitterly fought Bill to nationalise the aircraft and shipbuilding industries is hybrid.

The decision on hybridity—that the Bill gives unequal treatment to companies in the same line of business—concerns the legislation's most controversial parts, covering the ship repairing industry.

The 26-day scrutiny of the examiners, during which they heard Government, industry and legal witnesses, ended yesterday with evidence from the Department of Industry. They will spend to-day preparing their ruling.

The outcome is by no means clear. But Conservative experts who have followed the proceedings carefully expect that the Bill will, in fact, be found to be hybrid.

In that case, the Government, which all along has refused to delete ship repairing from the measure, must face the prospect of further delays to a Bill it has been trying to force on to the Statute Book since April, 1975 against the insistence of the Conservative-dominated Lords that ship repairing be removed.

The Bill was reintroduced this session under the 1949 Parliament Act which limits the delaying powers of the Lords to about a year.

Although the Act is understood to apply even to Bills declared hybrid, the hostile Conservative peers may still refer the legislation to a select committee, thereby removing any chance of early implementation of the Bill.

Last November, the clerks in the Commons said the measure showed *prima facie* hybridity. But Labour prevented the risk of delay then by simply voting that the normal rules (Standing Orders) of the House be suspended.

However, the Lords with its inbuilt Conservative majority was less obliging, and its refusal to bow to the will of the Lower House came within an ace of provoking a historic constitutional show-down.

The Prime Minister himself accused the Lords of "wrecking tactics" in refusing to consent to a measure approved by the democratically elected Commons, and which had appeared in Labour's electoral manifesto.

Parliament, Page 12

Labour MPs back status quo in electing party leader

BY RICHARD EVANS, LOBBY EDITOR

LABOUR MPs voted by a two-to-one majority last night to retain their long-established right to elect the Leader of the party.

The decision, taken while a working party of the National Executive Committee is studying new methods of electing a leader, is likely to bring the Parliamentary Labour Party into conflict with the NEC and the party conference.

The row may affect significantly the choice of future Labour Party leaders and explode at the party conference in the autumn, when the recommendations of the working party are expected to be debated.

The conference is expected to favour giving a more direct say to the rank-and-file and to constituency branches.

A motion approved by the Parliamentary party rejected any change in the present system of electing the Leader, who automatically becomes Prime Minister when Labour is in power. The motion will be sent to the working party for consideration.

A move by Mr. James Lamond, MP for Oldham East, a Left-winger, to have the motion shelved was rejected by 97 votes to 43, and a series of amendments, most of which called for greater participation by party activists, were rejected on a show of hands.

Mr. Cledwyn Hughes, chairman of the Parliamentary party, emphasised that the liaison committee of senior MPs who drew up the motion were not averse to change or reform, provided these could be shown beneficial to the party as a whole. But at present they thought the arguments overwhelmingly in favour of present procedures.

Power prices up 11% next year

By Roy Hodson

ELECTRICITY PRICES will rise by 11 per cent. on average during the financial year April 1977 to March 1978 if, as the electricity authorities expect, there is a sharp rise in coal prices this spring.

The Central Electricity Generating Board is basing its calculations on an expected 15 per cent. increase in the price of coal. There have been a number of semi-official indications recently that the Government is prepared to sanction a coal price increase of that order.

Electricity pricing plans for 1977-78 do not, however, take into account the possibility of a second coal price increase during the year if the National Coal Board is called on to cover the costs of the early retirement scheme recently concluded with the mining unions.

Fuel bill

The CEGB fuel bill accounts for nearly 60 per cent. of its costs. Coal is costing the Board more than £1bn. in the current year. The expected extra 15 per cent. on coal prices would add £170m. to the Board's fuel bill.

The bulk supply tariff on which the CEGB sells electricity to the area Boards has been re-written for 1977-78. For the consumer the most important change is that the CEGB is cutting the night rates for electricity by nearly 15 per cent.

Big generating sets at the newest coal-fired power stations, and the oil-fired and nuclear stations, are most efficient when run night and day to provide steady loads.

By widening the price gap between daytime and night-time electricity the CEGB hopes to encourage more use of electricity at night.

Night rate

Assuming the 15 per cent. spring price rise for coal, the new peak rate charge for electricity on the bulk supply tariff will be 2.35p per kilowatt hour against 2.047 at present—a 15 per cent. increase.

The night rate will fall from 0.747p per kilowatt hour to 0.64p, a cut of 15 per cent. The standard rate will rise by 3 per cent from 1.087p per kilowatt hour to 1.12p.

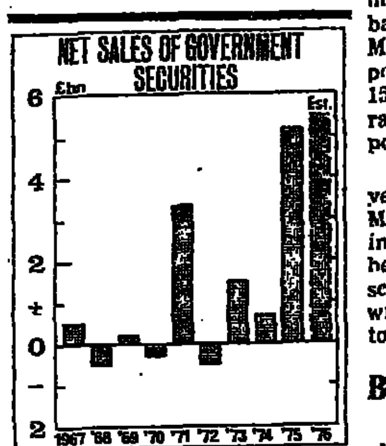
An average increase of 11 per cent. expected will be applied gradually to consumers' bills during the year as the automatic quarterly fuel price adjustments are made.

Consumption of electricity in Britain is estimated by the CEGB to be likely to reach 204bn. kilowatt hours for 1976-1977 compared with 201bn. kilowatt hours in 1975-76. Forecasts for 1977-78 suggest consumption of nearly 210bn. kilowatt hours.

THE LEX COLUMN

Measuring future funding needs

Index rose 9.8 to 376.1



It is now three weeks since the Government Broker was last operating a tap stock, and it looks increasingly as though the authorities have entered calmer financial water after two years in which the need to sell massive quantities of gilt-edged tended to overshadow the capital markets. In the coming financial year it is conceivable that the GB may have to do little more than refinance some £3.2bn. of maturities. That compares with issues of stock carrying a total face value of £8.1bn. during 1976-77 so far. But there are a number of ways in which the basic arithmetic could yet be upset.

The starting points are the estimates in the IMF Letter of Intent that the public sector borrowing requirement will be £8.7bn. for 1977-78, and the limit for domestic credit expansion will be £7.7bn. It is likely that the increase in bank lending to the private sector next year will be fairly small—say of the order of £2bn. On this basis the public sector will have to sell only about £3bn. of debt to the non-bank private sector for the DCE constraint to be met. Allowing for sources of finance such as national savings, and for the personal sector's direct purchases of gilts, the financial institutions might be required to take up less than £2bn. of gilts. And it must be taken into the reckoning that the PSBR, on present policies, is likely to undershoot significantly — by more than £1bn. according, for example, to Phillips and Drew.

With the annual cash inflow to the life insurance offices and the pension funds now swelling to over the £6bn. mark it is understandable why the gilt market has become confident that the Government's perspective funding requirements can be comfortably absorbed.

Yet there are some qualifications. It is likely that DCE will not, in the event, be anywhere near the indicated limit—the current financial year's DCE, after all, is likely to turn out several £bn. under the £9bn. limit. Moreover any tendency for the PSBR to undershoot could be partly or wholly offset by a reflationary Budget. And recent experience has shown that making short term projections of bank lending can be hazardous. The necessary level of gilt-edged sales is sensitive to changes in all these variables in the equation.

Indeed brokers James Capel, though happy about the prospects for 1977-78, are disturbed by what their crystal ball produces for 1978-79. They project a sharp increase in bank lending, and serious strains upon the capital market. But that is looking a very long way ahead.

Interest rates

For the first time since early November the coupon rate on the weekly issue of Local Authority yearling bonds rose yesterday. But this says more about Monday's shakeout in the gilt-edged market than about the general trend in interest rates.

Generally, the money markets are adjusting to the idea that interest rates are now stabilising after their recent sharp drop. For the first time since early December, the discount houses did not borrow from the Bank of England yesterday, though the latter did buy in treasury bills. The recent enormous shortages in the discount market have faded away, partly because the houses no longer have to finance such sizeable gilt books, and overnight money is much easier.

As the prospect of another sharp fall in interest rates recedes, the interest rate structure is beginning to look more normal. One-month and one-year interbank rates are virtually identical currently, compared with late January when the shorter rates were one and a half points above the longer rates. Meanwhile in the gilts market, high coupon shorts—which were at one time yielding three-quarters of a point less than MLR—are now yielding 12.3 per cent.

With easier money conditions and greater ... in the rate structure, th... must now be on the banks to cut their base ... MLR has fallen three per... points from its October pe... 15 per cent., while bank rates have dropped by ... points.

For the greater part ... year bank base rates stood ... MLR and with three ... interbank rates close to ... below base rate, the bank... scope for trimming their ... without laying themselve... to "round tripping."

Bamfords

There are a numb... obvious questions to be ... when a company with apparently strong balance ... announces that it needs equity, and proposes to ... by means of a very heavy ... issue underwritten by its ... shareholder (and custo... F. W. Burgess, a public ... company, currently cont... per cent. of Bamfords, th... cultural machinery maker ... its holding seems bound ... to over 50 per cent. fo... the latter's proposed ... issue. This is designed ... the equivalent of nearly ... current market capitalis...

Bamfords has taken in... dent advice (from H... and has secured a num... undertakings about futu... dends arm's length deali... the like. And it says th... are clear benefits from ... links with Burgess. B... the general question is w... the minority shareholders ... protection when confront... such proposals — their ... of veto — is really adequ... opponents of Cavenham ... last year with Generale O... tale discovered, it is ... difficult to get an in... opposition organised.

Wedds on gilts

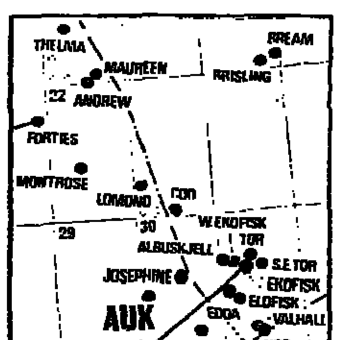
Jobbers Wedd Dur... Mordaunt are offering two... sions for 1977 of their ... established and respected r... ence work on the gilt... market. The more exp... hard cover version is des... to reflect "something of ... prestige associated with ... gilt-edged market and those ... have dealings in it." A... priately enough, it is finis... gilt lettering.

Shell/Esso strikes new field by accident close to Auk

BY RAY DAFTER, ENERGY CORRESPONDENT

THE SHELL-ESSO group has inadvertently made a new oil discovery close to its commercial Auk field, some 185 miles offshore of Dundee.

Shell-Esso found the edge of a new reservoir while drilling a development well from the Auk production platform. It is expected that they will carry out a further search using a mobile exploration rig to evaluate the new structure.



The new find is thought to lie a few hundred feet below the level of the Auk reservoir and to the East of the production platform. Shell said yesterday that its reserve estimates for Auk were not affected by the development.

Auk Field, which came on stream a year ago, has about 50m. barrels of recoverable reserves. The field lies in the Zechstein geological formation whereas the newly-discovered oil lies in a lower Rotliegendes sandstone rock.

It is far too early to assess the potential of the find. Shell believes that it has touched only the flank of the reservoir, the size and nature of which is unknown.

Shell and Esso have deliberately drilled below the Zechstein formation with all of its wells. The first two Auk development wells (used for tapping the oilfield) found only water at the lower level. The third well missed the Zechstein rock system and struck the new reservoir.

The area around Auk is complex and faulted but if the unnamed reservoir proves to be a commercial prospect, development could be achieved by means of long, deviated wells from the main platform or through submarine wellhead systems.

A number of North Sea gas fields have already been found in Rotliegendes rock, including Leman, Hewett and Indefatigable.

Mesa Petroleum rebuff Page 11

Sterling and shares recover

BY MICHAEL BLANDEN

THE POUND and the stock markets recovered yesterday after the setback suffered on Monday in response to the poor trade figures for January.

In the foreign exchange market the authorities put a sharp squeeze on short-time Eurosterling interest rates. The cost of a very short term money reached 60 per cent. in places.

The Bank of England was also thought to have given some direct support early in the day. As a result the pound rose after a relatively slow start. It remained fairly stable during the afternoon in generally calmer markets.

Sterling closed in London at $1.7045, making up 75 points of the 1.55 cent fall recorded on Monday. The effective depreciation from December 1971 levels narrowed to 43.4 per cent., compared with 43.6 per cent. on Monday and 43.8 per cent. in early dealings yesterday.

In the stock market it was felt the reaction on Monday was overdone. Equity shares improved with the Financial Times index closing with a gain of 9.8 points at 376.1. It fell 15.2 points on Monday.

Gilt-edged prices also recovered, with the market regaining its poise and looking generally stronger. Rises of as much as 1½ points were seen in the longer and medium end of the market.

The Financial Times Government Securities index rose 0.72 to 65.15. It fell 1.47—the biggest single day fall for more than four months—on Monday.

Output rise insufficient to check unemployment

BY PETER RIDDELL, ECONOMICS CORRESPONDENT

INDUSTRIAL PRODUCTION has improved slightly in recent months, although the growth rate is still very low and not nearly enough to prevent another increase in unemployment.

The Central Statistical Office announced yesterday that the all-industries index of output was nearly 1.5 per cent. higher in the final quarter of last year than in the previous three months.

In the Commons yesterday, Mr. James Callaghan, the Prime Minister, referred to this rise at Question Time and claimed that the economy was probably moving in the right direction.

This trend corresponds with the analysis in last week's CBI Economic Situation Report which talked about a continuing weak cyclical recovery which was not showing signs of improving.

INDUSTRIAL PRODUCTION
1970 = 100
Seasonally adjusted

		All Industries	Total Manufacturing
1975	1st	104.7	106.1
	2nd	100.3	100.5
	3rd	99.6	99.7
	4th	100.4	100.4
1976	1st	102.1	102.0
	2nd	102.4	103.5
	3rd	101.5	103.4
	4th	102.9	104.2
	July	101.4	103.6
	Aug.	100.6	102.4
	Sept.	102.4	104.2
	Oct.	102.8	104.8
	Nov.	103.1	104.5
	Dec.	102.8	103.2

Source: Central Statistical Office

The output figures are still very erratic from month to month, and in December there was a slight fall in the all-industries index to 102.8 (1970 = 100, seasonally adjusted) from 103.1 in the previous month.

It is officially suggested that this may understate the December level since, as with the trade figures, the seasonal adjustment process has not yet caught up with the longer Christmas holidays now being taken.

It is also possible that fourth quarter output may have been slightly understated because of a changeround in the stock trend from the summer with possibly a start to restocking towards the end of the year.

The dull underlying trend is, however, shown by the fact that production at the end of the year was little higher than in the spring.

During last year as a whole, the all-industries index rose by only 1 per cent., compared with 1975. Manufacturing output rose by 1.5 per cent. over the same period, mainly reflecting a rise in export demand for chemicals and textiles. This was offset in the all-industries index by a sharp drop in construction output.

The only encouraging feature was a rise of nearly 4 per cent. in mining and quarrying output, as a result of the build-up of North Sea production.

In the last quarter, this sector's output rose by 7.2 per cent. (with a slight rise in coal production as well). This accounts for the faster growth on a three-month basis in the all-industries index in the period compared with the manufacturing index, which increased by only 0.7 per cent.

The rise in North Sea output is reflected in the latest estimate from Brokers Wood Mackenzie of its impact on the current account of the balance of payments. Their survey, published yesterday, pointed to a surplus of £1.15bn. in 1977 from the North Sea, which is higher than many previous projections.

Editorial Comment, Page 14

Weather

U.K. TO-DAY

BRIGHTER, showery conditions spreading from the W.

London, S.E., E., N.W., Cent. N. England
Cloudy with rain, becoming Cent. S., S.W. England, W. Midlands, Channel, Wales
Showers, sunny intervals. Max. 9C (48F).

Lakes, N.E. England, Borders, Edinburgh, Dundee, S.W. Scotland, Glasgow, Cent. Highlands,
Cloudy with rain, becoming brighter with showers.

Aberdeen, Moray Firth, N.E. Scotland Orkney, Shetland
Cloudy, rain at times. Max. 6C (43F).

I. of Man, N. Ireland
Showers, sunny intervals. Max. 7C (45F).

Outlook: Changeable.

● Long-rang forecast: Changeable weather is expected in most places during the next four weeks, but it may become drier and more settled later, especially in the West.

BUSINESS CENTRES

		Y'day Mid-day °C	°F			Y'day Mid-day °C	°F
Alexandria	S	21	70	Madrid	S	10	50
Amstrdm.	C	3	37	Manchstr.	C	4	39
Athens	S	16	61	Melbourne	H	21	70
Barcelona	S	10	50	Milan	C	7	45
Belfast	C	6	43	Montreal	C	—4	24
Belgrade	S	9	48	Moscow	S	—7	19
Berlin	C	1	34	Munich	F	3	37
Brmzhm.	C	2	36	Newcastle	R	5	41
Bristol	C	5	41	New York	S	4	39
Brussels	C	6	43	Oslo	C	—4	25
Budapest	C	5	41	Paris	C	6	43
B. Aires	R	19	66	Perth	F	31	97
Cairo	S	21	71	Prague	C	2	36
Cardiff	F	7	45	Reykjavik	C	1	34
Cologne	R	5	41	Rio de J'o	S	31	59
Copnhagn.	C	1	34	Rome	F	13	55
Dublin	C	6	43	Singapore	S	29	84
Edinburgh	C	5	41	Stockholm	C	—2	28
Frankfurt	D	5	41	Strasbrg.	C	9	48
Geneva	R	4	39	Sydney	H	27	81
Glasgow	C	5	41	Tehran	S	13	55
Helsinki	S	—14	7	Tel Aviv	S	21	70
H. Kong	S	16	60	Tokyo	Sn	3	37
Jo'burg	S	25	77	Toronto	S	—12	10
Lisbon	S	11	52	Vienna	C	4	39
London	C	4	39	Warsaw	Sn	—3	27
Luxembg.	R	3	37	Zurich	F	1	34

HOLIDAY RESORTS

Ajaccio	C	9	48	Istanbul	F	15	59
Algiers	F	15	59	Jersey	F	9	49
Biarritz	C	9	48	Las Plms.	S	20	68
Blackpool	F	6	43	Locarno	F	7	45
Bordeaux	F	9	48	Majorca	S	12	54
Boulogne	C	5	41	Malaga	S	15	59
Cape Tn.	S	26	79	Malta	F	15	59
Corfu	T	11	52	Nairobi	S	24	76
Dubrovnik	C	11	52	Naples	S	9	48
Faro	S	14	57	Nice	F	13	55
Florence	R	7	45	Oporto	F	11	52
Funchal	C	17	63	Rhodes	S	17	63
Gibraltar	S	15	59	Salzburg	F	3	37
Guernsey	F	8	46	Tenerife	S	16	61
Innsbruck	F	4	39	Tunis	C	14	57
Inverness	C	6	43	Valencia	S	15	59
Is. of Man	F	7	45	Venice	C	5	41

C—Cloudy. D—Drizzle. F—Fair. H—Haze. R—Rain. S—Sunny. Sn—Snow. T—Thunder

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